The Map Is Not the Territory: Indigenous Climate Sovereignty in the Age of Apocalypse

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This thesis is submitted for the degree of Doctor of Philosophy.

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ABSTRACT

This thesis grapples with two distinct but interrelated issues: Indigenous climate sovereignty and the imagination of climate apocalypse. It is particularly concerned with how these two themes intersect in the High North, a landscape continually constructed as a periphery and frontier. In the pages that follow, I explore the misalignments between colonial projections of the land and its people, and the lived experiences of climate change and colonialism as I encountered them in two Alaska Native villages.

This thesis is rooted in a multisited ethnography in Norton Sound, in Western Alaska. The ethnographic object of this study is not Alaska Native communities, but rather the forms of politics that connect rural Indigenous governments to colonial centres of power in the United States Federal government. In that sense, the research presented here is as much a political ethnography as it is an environmental one.

The conclusions presented in this thesis are fourfold. 1) Marginalised Alaska Native communities face a neo-colonial pressure whereby, in order to receive assistance, they are required to adopt the bureaucratic forms and logic of their colonisers; 2) the manner in which the Arctic has been enlisted to support popular apocalyptic climate discourse echoes the modernist role the region played in 19th- and 20th-century constructions, as a mirror for urban humanity; 3) social scientists and humanities scholars have broadly neglected the importance of situating knowledge about climate change and ecological futures, and instead resort to sweeping, planetary gestures; and 4) urban narratives of climate apocalypse offer a potent antidote to political alienation.

For my grandmother, Muriel Deutsch Lezak, who, I suspect, would have read every single page.

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GLOSSARY

Alaska Native	Any person of Indigenous Alaskan heritage, which includes Inuit, Aleut, Yup'ik, Inuit, Tlingit, and many other groups.
Alaska Native Village	A self-governing rural Alaska Native community, often comprised of a distinct municipal government, a Tribal government, and an Alaska Native village corporation.
American Indian	Refers to most Indigenous Americans, but generally excluding coastal Alaska Native peoples west of the Copper River and along the North Slope, including (but not limited to) the Iñupiat, Aleut, Siberian Yupik, and Yupiit. Historically, and to a limited extent today, contrasted with "Eskimo."
ANCSA	Alaska Native Claims Settlement Act (of 1971)
FEMA	Federal Emergency Management Agency
Native America/Alaska	The physical, cultural, and political spaces inhabited by Indigenous Americans (or Indigenous Alaskans). Distinct from the term "Indian Country," which in the legal sense is almost non-existent in Alaska.
Norton Sound:	A geographical and semi-political designation in Western Alaska. Norton Sound is the body of water between the Seward Peninsula and the Yukon-Kuskokwim Delta. The political designation includes communities along the western and southern coasts of the Seward Peninsula, down to the outer edge of the Yukon-Kuskokwim Delta, and includes St. Lawrence Island and Little Diomede Island.

...In that Empire, the Art of Cartography attained such Perfection that the map of a single Province occupied the entirety of a City, and the map of the Empire, the entirety of a Province. In time, those Unconscionable Maps no longer satisfied, and the Cartographers Guilds struck a Map of the Empire whose size was that of the Empire, and which coincided point for point with it. The following Generations, who were not so fond of the Study of Cartography as their Forebears had been, saw that that vast Map was Useless, and not without some Pitilessness was it, that they delivered it up to the Inclemencies of Sun and Winters. In the Deserts of the West, still today, there are Tattered Ruins of that Map, inhabited by Animals and Beggars; in all the Land there is no other Relic of the Disciplines of Geography.

—Suarez Miranda, Viajes de varones prudentes, Libro IV, Cap. XLV, Lerida, 1658

—Jorge Luis Borges (1999)

1. Introduction

In 1864, in the vaunted Great Room of London's Royal Academy, a painting was unveiled. *Man Proposes, God Disposes*, shows two polar bears feasting upon the remains of a wrecked ship. Spars lay across a jagged ice floe. One polar bear tugs at a flesh-coloured cloth; the other chews upon a rib with menacing abandon. To its audience at the time, it was "a scene of unrestrained horror, of a kind seldom if ever seen in British art" (Moore, 2009: 36).

Man Proposes, God Disposes, was inspired by the ill-fated 1845 expedition in search of the Northwest Passage led by Sir John Franklin. The search for Franklin's party was a subject of fascination on both sides of the Atlantic. Nearly ten years after the expedition left Britain, controversy flared by reports that the lifeless remnants of Franklin's expedition had been seen by Inuit, alongside evidence of cannibalism. "From the mutilated state of many of the corpses, and the contents of the kettles, it is evident that our wretched countrymen had been driven to the last resource—cannibalism—as a means of prolonging existence," wrote John Rae, an explorer who travelled to the Arctic in 1848 to search for Franklin and his crew. (Gopnik, 2014). Victorian Britain was outraged. Pamphlets circulated, including one by Charles Dickens, who mounted a staunch and racist defence of his countrymen, and by extension, of all good Englishmen:

> In weighing the probabilities and improbabilities of the "last resource," the foremost question is — not the nature of the extremity; but, the nature of the men. We submit that the memory of the lost Arctic voyagers is placed, by reason and experience, high above the taint of this so easily-allowed connection; and that the noble conduct and example of such men, and of their own great leader himself, under similar endurances, belies it, and outweighs by the weight of the whole universe the chatter of a gross handful of uncivilised people, with domesticity of blood and blubber. (Rae and McGoogan, 2012: 274)

Man Proposes, God Disposes, did not indicate cannibalism in any literal sense, but the image of the rib in the polar bear's mouth was taken as a macabre wink. One art historian writes that, to viewers at the time, the painter "had gone beyond the pale in depicting such a ferocious destruction of a valiant expedition" (Moore, 2009: 36). It didn't help that the painting was unveiled one year following the exhibition of Frederic Edwin Church's *The Icebergs*, a distinctly different representation of Franklin's voyage. *The Icebergs* shows a fractured mast

lying amid a placid Arctic seascape, with colours reminiscent of J. M. W. Turner's rich pastel skies. Its serenity and poise stunned audiences. It was first exhibited in New York and Boston, and the "reception of London's intelligentsia… was rapturous" (Moore, 2009: 36).

That's what people wanted to see: glory, a frozen Elysian Fields, a sense of peace befitting the demise of valiant men—not the grim, slanderous material suggesting that noble adventurers might have succumbed to the High North's wildness. Still, *Man Proposes* captivated ordinary viewers and critics alike, perhaps in the same way that a Quentin Tarantino film does today (Scott, 2019). It raised questions about the limits of decency in art, which are also thinly-veiled questions about the limits of decency in humanity.

And that's the crux of the matter. For centuries, the Arctic—and wilderness generally (Cronon, 1995)—has been a civilisational mirror disguised as a window onto the sublime. It is the place where we dispatch scientists on the premise of obtaining some truth, but the more honest reason for these voyages is a desire to see humanity reflected in the crisp, cold air of the High North. That is why the Victorians at the Royal Academy were not particularly interested in the Arctic in its own right—consider Dickens' entirely uncurious dismissal of the Inuit—but rather in the fate of their own countrymen. Famously, *The Icebergs* initially received a relatively placid reception. This original version was only of the seascape. Then, Church added the battered mast in the foreground, and only then did the canvas became a sensation (Lopez, 1986). As it turned out, the Arctic *per se* was not of particular interest—it was the Arctic *as a stage* for human drama that captivated audiences.

Of *The Icebergs*, Barry Lopez writes,

> we bring our own worlds to bear in foreign landscapes in order to clarify them for ourselves… The risk we take is of finding our final authority in the metaphors rather than in the land. To inquire into the intricacies of a distant landscape, then, is to provoke thoughts about one's own interior landscape. (1986: 247)

The hazard to which Lopez alludes is that we lose the ability to distinguish between metaphors and their subjects—that we mistake a mirror for a window.

Even then, the callous disinterest in the truth as such—for example, the outrage with which wholly credible claims of cannibalism were met by the English—indicates that the search for meaning was never really conducted in good faith. The Victorians considered themselves great, and their voyages served first and foremost to prove their greatness. It was adversity they sought, which is perhaps why the most accomplished explorers—those who made their expeditions look easy—were (and are) not nearly as celebrated as those whose

journeys ended in disaster (McCannon, 2012: 166). In truth, the Arctic wasn't primarily a scientific laboratory at all; first and foremost, it was a stage upon which Europeans enacted a collective autobiographical performance.

Today, little has changed. The Arctic still functions as a narrative pretext for collective autobiography, albeit in an almost opposite valance. Rather than testify to the greatness of a subset of humanity, it testifies (read: is made to testify) instead to the reckless disregard and self-destructive nature of a subset of humanity. Where we once went to prove greatness, we now go for a civilizational story of an Edenic Fall.

The Inuit are still there, as are many other Indigenous groups, who lead their lives with limited correspondence to the narratives imposed upon them from the South. Contemporary researchers are regularly taken aback to find that many Sámi and Inuit are, generally speaking, not gripped with terror about the present and future impacts of climate change (Forbes and Stammler, 2023; Furberg et al., 2011). And this sort of confusion stems from a simple social fact: there are two Arctics, two different maps for the same territory (cf. Korzybski, 1931). The first is an Arctic in a particular, cosmopolitan, temperate imaginary. This Arctic has transformed over time, and today occupies a particular niche in the apocalyptic imaginaries that predominate among a subset of Western society. The second Arctic is local, embodied, and decidedly more plural than the first. It is sometimes Indigenous, and other times rabidly colonial, and finally geophysical. And it is utterly uninterested in participating in global exercises in cosmopolitical meaning-making.

This dissertation is dedicated to both of these Arctics, and in particular to the awkward emptiness between them, a gulf of non-understanding that has proven to be remarkably persistent—indeed, this gulf has existed for centuries if not millennia, and there is no reason to suggest it will vanish anytime soon. The misalignment between these two Arctics reminds us, forcefully, that our representations of the land are always just that: representations. As such, they deserve far more humility than we are in the habit of providing.

By Way of Introduction

This introduction reviews the theoretical stakes of this dissertation. I then summarise my methodology—which is discussed at length in a later chapter—before momentarily situating this work within a broader disciplinary context. I take a moment to reflect on my positionality as a researcher. Finally, I provide a structural overview of the following chapters.

At the most general level, this dissertation is about the politics of climate adaptation in Indigenous Western Alaska and the imaginations of disaster that characterise foreigners' perceptions of this landscape and its people in the 21st century. Although it is set in the region of Norton Sound, its ethnographic focus is the relationships of power that relate Indigenous livelihoods in the region to the colonial government of the United States. It is also focused on unpacking the plural Arctics that exist within cultural and scientific representations.

In what follows, I attempt to trace the interstitial space between two Arctics: one that is local and embodied, and another that is allegorical and diffuse. It comes to these two halves by way of inquiry as well as through methodology and research design. Part of the work that I sought to do in the Indigenous High North—to document a decidedly different experience of climate futures and fear—is fundamentally allegorical. Any effort I made to describe it otherwise would be contrived. This research was in conversation with critical theorists, artists, storytellers, media types, and my own questions about the human enterprise in the 21st century. It is allegorical in the sense that it is only partly concerned with Western Alaskan communities, and that concern is attenuated by a desire to engage in a cosmopolitan and theoretical discourse. By way of comparison, a newspaper story in the *Nome Nugget* on last week's high school basketball game is concerned exclusively with Western Alaskan communities.

There is something extractive to this allegorical research, particularly because the intellectual dividends are not reinvested back into the community, but brought out into other conversations, in which Western Alaska Native communities are made into characters. The fruits of these cosmopolitan conversations are unlikely to be of immediate benefit to the communities who made these stories possible, and I was unwilling to invent some hypothesised benefit from participation of which I myself was not fully convinced. It was with that concern in mind that I paid careful attention to the other half of this research: one that is literal, concrete, and seeking fundamental alignment with the principles of reciprocity and beneficence that are essential to decolonial research (Kovach, 2021; Smith, 1999), and that are evident in the research methodologies of other scholars I admire, such as Elizabeth Povinelli (2016) and Elizabeth Marino (2012, 2015).

A pattern begins to emerge, with these separate halves gradually aligning into two poles. On the one side, which I call the literal, is the research that is driven primarily by the aims of beneficence and reciprocity, focused on concrete mechanisms of power, colonialism, and infrastructure. It bears mentioning explicitly that the *generalizable knowledge* I am exhorted to produce in the process of my studies is relatively useless to the communities who

invited me to conduct research with them. And so the literal side presses against that exhortation. It is relatively prescriptive, and its research design is decidedly invested in generating some tangible benefit for the villages that have invited me to spend time learning from their leaders. It aspires to speak truth to power. If these leaders speak about my visits and our partnership, this is the work I hope they will point to—the papers they might pull out of a drawer that document how they are being underserved, and how they might be served better to achieve goals of environmental and Indigenous justice.

Call the other half the allegorical. It is focused on cosmopolitan spaces, in conversation with the individual and collective psyches of people with whom I am most culturally familiar, from spaces like Cambridge (rather than rural Alaska). It is allegorical because it is interested in particular Indigenous perspectives as a source of clarity and as a broader analytic that are distinct from those commonly found in societies that have succumbed to the psychic provincialism of urban and post-industrial life, and the ensuing construction of the broader world as passive, inert, and only made meaningful through human engagement (Haraway, 2016; Kohn, 2013; Plumwood, 1993).

This allegorical half is interested in disrupting what I claim are threads within academia and society that lean heavily on self-indulgent, half-baked prophecies of apocalypse, particularly those tied to climate change. These prophecies have crept into scholarly discourse in alarming ways. It seems at times as though broad swathes of social scientists and humanities scholars have abandoned the feminist insights about situating knowledge within bodies and in places (Haraway, 1988). Instead, we have entered an academic era when it is shockingly in vogue to conjure planetary futures, implying a shared human destiny—a world in common—essentially writing science fiction storylines to describe the contemporary human condition (Sontag, 1961b). Within these narratives lurks a resurgent high modernism—and just like the high modernism of the Victorian Era, the Arctic is cast in a critical supporting role; in this instance, as a foil for man's folly rather than for his greatness.

In the pages that follow, I turn to each of these halves, and ultimately attempt to bring them together—two landscapes, one experienced close-at-hand and one imagined from far away, in dialogue. My hope is that the landscapes and the communities that call these places home can speak for themselves, if we are humble enough to listen. They have things to tell us—about the past, present, and future—that do not comport with our ideas about the Arctic, or indeed about the planet writ-large.

Polar Studies: A Disciplinary Penumbra

This dissertation is submitted for the degree of PhD in Polar Studies, which is not quite a discipline in the way that anthropology or human geography are disciplines. Moreover, a majority of the literature referenced in the following pages could not be called "polar studies" literature. Instead, I draw primarily from human geography, and at times rely—in no particular order—on critical theory, political theory, (post-)colonial studies, history of science, and anthropology. Arguably, human geography is already a disciplinary odd-sock drawer in that it regularly taps into these other disciplines. But I am conscious that some of the voices I lean on most heavily in this dissertation only infrequently appear in geographical literature: Susan Sontag, Frantz Fanon, and Hannah Arendt. Why? I notice that *Black Skin, White Masks*, *The Human Condition*, and *Against Interpretation* were all originally published within ten years of each other (1952-1961, although Fanon was not translated into English until 1967). This was before the European-led cultural turn began in earnest, but after the cracks in the façade of high modernism had turned into great fissures, blasted apart in particular by the violence of the Nazi genocide and the advent of the atomic age. The disciplinary vocabulary that the French would bring to bear upon these issues was nascent, but these three thinkers were already developing highly political critical theories in response to the problems of their time.

Why have these three voices been relatively overlooked by geographers today? For Fanon, perhaps it owes to his loyalty to the psychoanalytic tradition, to which geographers seem somewhat averse—after all, consciousness is notoriously difficult to locate in space (Massumi, 2002). For Arendt and Sontag, it may simply have been that they wrote in English;[1] or that the nucleus of their interests was fundamentally *social* rather than individual, whereas poststructuralism was perhaps more invested in beginning its critique from a linguistic or textual point of departure, and then broadening outwards to the social and political. Perhaps it had something to do with the fact that Arendt and Sontag were women (—sitting at my keyboard, I cannot think of any acclaimed Continental postmodern theorist active in the 60s or 70s who was not a man). In any event, the theoretical *tabula rasa* of the cultural turn at times feels like a disciplinary Great Flood, and many brilliant thinkers were washed out with the tide, with the notable exception of Fanon's continued prominence in colonial and revolutionary

[1] *The Human Condition* was not published in French until 1983. *Against Interpretation* was published in French in 1969.

studies (e.g., Coulthard, 2014). Personally, I have found that these three thinkers are both prescient and useful when it comes to identifying social and cultural impulses that are *pre-political*. In some instances, they also speak more clearly and directly than their French successors, making them excellent partners to think with.

There is a second question: which disciplines do I hope this dissertation will speak to? In brief, the most literal aspects of this research hope to be in close conversation with several scholars working on the impacts of climate change in the High North or in North America more broadly, and particularly with respect to colonised Indigenous subjects—Elizabeth Marino, John Pennington, Tom Thornton, Julie Raymond-Yakoubian, Kyle Whyte, and many others. The more allegorical part of this work speaks to a different audience. This theoretical side aims to engage in ongoing conversations about climate futures and the politics of apocalypse, engaging contributions by Bruno Latour, Eduardo Viveiros de Castro, Déborah Danowski, Kyle Whyte, Donna Haraway, Anna Tsing, Erik Swyngedouw, Elizabeth Povinelli, and others. Speaking to two such audiences might be beyond the purview of a traditional scholarly monograph; but I have given myself permission to do so in this dissertation, which is not quite a monograph, but a record of my work in the past five years and my efforts to make a modest contribution to two different but essential and ultimately intertwined veins of critical environmental scholarship.

On Methodology

I have reserved a dedicated chapter to discuss my methodology in detail, but it warrants a mention here. This dissertation is the product of an 18-month multisited ethnography focused on Norton Sound, in Western Alaska. Unlike a typical ethnography, which studies a particular group of people (Knight and Rival, 1992), the ethnographic object of this study was the relationships of power and the socioecological structures along this colonial and climatic frontier. To be clear, this is not an ethnography of Iñupiaq, Yup'ik, or Siberian Yupik people. Such ethnographies have been written before (e.g., Birket-Smith, 1936; Fienup-Riordan, 2010; Jolles, 2002; Sakakibara, 2017), and I did not see a need to write or re-write such a study. My desire, rather, was to turn the ethnographic lens toward colonial power structures from the vantage of the colonised. For that reason, this methodology departs in several ways from a classical ethnography (if such a thing exists).

The most notable of these departures is my decision against living in an Alaska Native village; neither did I learn an Alaska Native language. Rather, I moved to the majority-Alaska Native city of Nome, the regional capital of Norton Sound. From there, I developed strong research relationships with two Alaska Native villages in the region, and travelled to these field sites for at least a week at a time, making eight recurring trips over the course of a year. During these visits, I conducted interviews with Tribal leaders and participant observation in the Tribal government headquarters.

Figure 1: Norton Sound. Credit: Lia Cioni.

Meanwhile, I immersed myself in the broader community of Nome, Alaska. I wrote stories for the local paper, became an apprentice dog musher, performed at the open mic, taught at the local university campus, presented on one of Nome's two radio stations, and generally made a point of being a visible and engaged resident of the town. This proved to be a valuable ethnographic exercise, in that Nome is a geographical (and in some ways political) bottleneck in the region. My presence there also established me within pre-existing networks of leaders, researchers, and advocates, and ensured that I was enmeshed in a community within which I could be held accountable. Put plainly, if anything had gone amiss in my research, whether in

Nome or in a village, I could reasonably expect that my network of friends and colleagues in Nome would hear about it.

On Positionality

Taking a moment to meditate on how I came to this research is both essential and essentially fraught. It is essential because the research I have conducted does not pretend to a sort of objectivity that would make my own experiences, biases, or desires moot in the investigative and interpretive process—as might be the case, arguably, in an exploration of theoretical mathematics. There is no replicable methodology here, not least because the process of creating meaning through this research is deeply entwined with my orientation of self and belonging. Moreover, my participants in this research were participating *with me*. Were I different, their responses to my questions would surely have been different, albeit in unknowable ways. But this reflection is also essentially fraught—because it can be difficult to separate *identity* from *experience*. I am sensitive to "the habit of prefacing political opinions with a declaration of identity, as if an opinion… somehow becomes more credible and significant" through its relationship with the speaker's identity (Stephens, 2024). The notion of positionality is awkwardly bound up in these politics. In their problematic form, positionality statements risk ignoring the substantive questions that matter much more, which ask how a researcher's *experience* influences their scholarship. Identity, I contend, is a merely a proxy for the more substantive experience.

At their most perfunctory, positionality statements focus on a key subset of ontic criteria—those that are often wrapped up in larger, fundamentally *political*, questions about whether one person's voice should be credited more or less than another's. When reviewing other positionality statements while drafting this one, I came across one scholar who describes their husband in the following way: "He is white, *but* had a difficult childhood," my emphasis. In the choice of that one preposition, "but," the writer suggests an ontic tension between being white and having a difficult childhood. A reader is immediately advised that the conclusions she might draw about the white husband's *experience* are not the correct conclusions! And yet neither does the writer seem interested in dispelling the stereotypes *prima facie*—as if her husband is the exception that proves the rule. ("The hamburger is not vegetarian, but the meat is organic and local.")

This is an ontological issue disguised as an epistemological one. Or it may be both, but the ontological question must be answered first—what does it mean to *be* something, in the context of positionality? For example, a friend of mine just took a DNA test and learned that he is of Ashkenazi Jewish ancestry (an ethnic identity, to be sure). But nothing else may change in my friend's life. In this case, *being* Ashkenazi exists within an ontology of identity that hardly bears upon *experience* as such, but nevertheless belongs within a codex of immutable characteristics.

I raise this hypothetical to draw attention to the disconnect between the epistemology of *identity* and the more ontic question of *being* in the world. Kadji Amin observes that "Today, 'gender identity' references a core selfhood that requires no expression, no embodiment, and no commonality" (2022: 116)—i.e., it may be entirely covert and internal (like the Ashkenazi situation). And while these identities may have extraordinary influence upon *how* a person moves through the world, identity is by no means any guarantee or predictor of a particular experience, as Amin posits for some who identify rather casually as *nonbinary*. "In this sense," Amin continues, "contemporary gender identity is the apotheosis of the liberal Western fantasy of self-determining 'autological' selfhood, a regulatory ideal that gains meaning only in opposition to the 'genealogical' selfhood, overdetermined by social bonds, ascribed to racialized and indigenous peoples" (2022: 116). Without over-extending Amin's analysis of gender, I wish to lean upon his critique of autological selfhood as a regulatory ideal and an artefact of a Western fascination with the individual—and in this case, with the individual's narrative of selfhood. The positionality statement traditionally asks a scholar to turn to both autological and genealogical dimensions of being and knowing. In many ways, this can generate potent ontic reflections upon a scholar's sense of being-in-the-world (often relational or genealogical), in addition to an invisible psychic world that may be covert but extraordinarily important in that scholar's approach (often individual or autological). But *identity* in this case is a wide net that is sweeping up *experience*, possibly with some considerable by-catch.

I raise this point not by way of excuse or dismissal, but by way of preface, as I locate myself within the subject matter and the ideas that animate the bulk of this dissertation. To wit: in the ten years during which I have done rigorous academic research—from my first position as a research assistant in 2014—I have focused on two issues. The first is Indigenous environmental justice; the second is how ordinary citizens conceive of climate change. Although I never consciously planned it as such, this dissertation weds these two ideas together.

I suspect—and can only suspect, because any strong truth claim here would border on psychoanalytic arrogance—that my interest in Indigeneity comes from being the product of a long lineage of people with homes but without homelands, and people who have travelled great distances in the span of few generations. Some of those journeys were made by people we would now call refugees—although I don't think they themselves used that word in English or Yiddish; others were made by people seeking a different sort of freedom from a different sort of oppression. By and large, these were journeys *away from* and not *towards*.

Many of my ancestors were buried thousands of miles away from where their parents were born, which must have been heartbreaking for the earlier generations and eventually became normalised for the more recent ones. I recall a story from Norton Sound, which tells of an Indian (i.e., an Alaska Native who lived inland rather than on the coast) who was being pursued by Inuit warriors on an island. He ran for his life and the Inuit chased him across the sea ice toward the mainland. Finally, he made it off the sea ice and arrived at a creek, close to his homeland. He stopped and faced his pursuers. He told them, "You can kill me now because I'm not on the island anymore, I'm on the land, my bones will be in the land" (Koutsky, 1981: 29) That sentiment has not existed in my family since at least the 19th century, and possibly earlier.

I myself am caught in between these worlds. I cannot quite imagine the journey my not-so-distant ancestors took, leaving everything behind, travelling to a land where I don't speak the language and have no means to support myself save for my hands, to be utterly dependent upon the kindness and goodwill of strangers. But neither do I feel a sense of belonging; there is no place on earth that I would die for. While conducting research in Mongolia in 2017, one of several nomadic herders I interviewed told me, "When anyone asks for your land, even God, you must say no." It's a feeling that is utterly foreign to me. It is, as best as I can hypothesise, from the foreignness that I came to admire, and perhaps yearn for, the sense of home that characterises many Indigenous communities, whether in Southern Mongolia or Western Alaska. And I suspect that from this feeling of absence and alienation, I developed a fascination for communities that have in abundance what I subconsciously felt that I lacked.

My relationship with Alaska is further complicated by the fact of being a person of European descent who was born and raised on stolen land in North America—and by extension, as someone who benefited directly from acts of dispossession, genocide, and settler-colonialism. I look for clarification to Lowman and Barker's definition, derived from the

Canadian context, that settlers "live on lands that have a pre-existing and undisputable claim upon them" (Lowman and Barker, 2015: 45). (I find this definition more helpful than the discursive binary in which all non-Indigenous peoples are classed as settlers. The latter binary easily collapses, such as when we consider the African American slaves owned by Cherokee.) In the Eastern United States, by the dawn of the twentieth century, the American Indian genocide was grimly advanced. Still, I suspect that some combination of the Potawatomi, the Anishinaabe, the Ojibwe, and the Odawa could have claimed aboriginal title to the land now called Chicago, where my great-grandfather, Manny Lezak, worked as a kosher butcher, having fled pogroms in present-day Ukraine and arriving in the United States when he was no more than twelve years old. I cannot fathom whether the fact of him being a settler ever occurred to him.

But Alaska is different. In Alaska, non-Natives still use the term "homestead" unironically when referring to building new houses on unbuilt land. The wave of colonial genocide that swept the Lower 48 decades and centuries ago is still breaking on the shores of Alaska. Demographically, Alaska could be construed as basically a settler-governed Indigenous state with a large, majority-white, politically-conservative metropolitan area (in the form of Anchorage, its suburbs, and exurbs)—and a majority-white state government that is breathtakingly hostile to Alaska Native interests. Land is cheap, resources remain unexhausted—the frontier does not feel closed. "The most significant thing about the American frontier," wrote Frederick Jackson Turner, "is that it lies at the hither edge of free land" (1950). There is no "free land" in Alaska in the literal sense, but in many ways, the sentiment persists.

In my time in Nome, I thought about buying land and building a cabin. And I reckoned then, as now, that to do so would be to become a settler in a way that few, if any, of my ancestors were. It is this sort of positionality that informed much of my research and my perspective: a man born and raised on stolen lands, with an ambiguous relationship to the earliest acts of genocide and dispossession in the Lower 48; but undoubtedly a would-be settler on more-recently-stolen lands in Alaska. In that sense, I came to approach my work as someone who had profited from terrible acts, and who sees opportunities for some measure of healing and repair in the wake of those past and continued injustices. Where I exist personally in the constellation of harm and reconciliation remains a subject of inward reflection.

A couple of months before setting out on my fieldwork, I met for coffee with a colleague. Unlike me, she came to Cambridge from an impoverished background in an impoverished nation, and grew up modestly in a farming family, with no discernible claim to

privilege in any contemporary calculus. I shared with her my anxieties about my fieldwork—I, a white man, travelling to Native Alaska to conduct research with Indigenous communities. I had barely begun my self-indulgent reflection when my peer cut me off. "Your guilt helps nobody," she told me, with restrained irritation. What she saw, that I had not recognised in myself, was that I was searching for some cheap absolution. Some way of marking myself as "not one of *those*" researchers or, more broadly, Americans, as though simply implicitly demarcating a boundary between me and *them* was sufficient.

During my time in the field, I found that this sort of self-censuring was not expected nor appreciated by my rural Indigenous friends and colleagues. Rather, awareness—of self and other—was appreciated. But identity politics were mostly anathema to most of my interlocutors. They were not interested in my positionality, per se; they wanted to know whether I was an ally or not, and whether they could trust me. Neither did they trust the heuristics of identity (autological or genealogical) to make those assessments; they couldn't afford to.

Moreover, any rigid segregation between insider/outsider was not particularly appreciated in my research environments. My research participants liked hearing that I was an apprentice dog musher; they appreciated that I ate *maktak* when it was offered to me, with one even joking, "Oooh, you're more Eskimo than I am!" I was granted research access to one community by the traditional Tribal Council only after promising the Tribal president that I would participate in one of the traditional dances. (I did.) I received compliments on my *qaspeq* that I occasionally wore in Nome and in villages. The boundaries between insider/outsider did not feel so fragile that they needed to be kept sterile.

For my part, it helped that I have spent the majority of my life in the American Pacific Northwest, and several years (cumulatively) in very rural communities of fewer than 10,000 residents. I came to realise that my hometown was on the cusp of the distant/proximate imaginary for Alaskans. As in: *Oregon? That's not so far.* But just over the border in Nevada, Idaho, or California would likely receive a different response. It also helped that during past research engagements and through working as a journalist I had the privilege of spending time with Indigenous communities in the American West and elsewhere, and have nurtured a sensitivity and a sense of solidarity that arose from these encounters and friendships. In that way, I did not feel like a particular stranger to Native America, nor to Native Alaska. I was not, to quote one Tribal president, "clueless," as other non-Native visitors were. Often, I found that people could notice these qualities in me relatively quickly upon meeting—and I made every effort to be transparent and forthcoming. This helped advance my research aims enormously.

None of this was easy, of course. We too often gloss over just how difficult it is to tread delicately and ethically through an ethnographic encounter. This is the *hard* part of our research, in the same way that my friend in the physics department struggles to separate pulses of lasers into femtosecond intervals. For my part, this sort of work took careful planning, a steady hand, and a depth of social and emotional intelligence that is not the birthright of every human being who might wish to become a social scientist. (Despite this being the hardest part of the research process, it is the least *taught* at the departmental level, at least at Cambridge.)

I also took steps to ensure a trail of accountability and familiarity. I enrolled as a student at the University of Alaska, Fairbanks, in the Tribal Government program. Not only did I learn (and continue to learn) an extraordinary amount from my classes there, but I was also able to say, truthfully, that I was a student at the University of Cambridge and at "UAF." My professor at UAF was well-known to many Tribal leaders, as was the program I enrolled in.

Finally, I found myself in a strange position of reluctant ambassadorship. My research focuses on the politics of oppression, but the bureaucrats whom my Indigenous partners had come to associate with these systems of oppression are very much my cultural and political peers. I do not know them personally, but they are hardly foreign to me. So it probably comes as no surprise that I occasionally found myself wanting to apologise on behalf of the bureaucratic violence that my research participants endured, often at enormous cost to them and their communities. My political affinities were one thing; but at the end of the day, when I looked in the mirror, I saw myself more closely related (in the genealogical sense) to the oppressor than the oppressed.

Structure of the Dissertation

This dissertation is divided into eight chapters, including this one.

Chapter 2 begins with a general introduction to Norton Sound, Alaska, the politics of Tribal sovereignty in the state, and the impacts of climate change on Western Alaskan communities. It serves to familiarise a reader with the geographical context of this dissertation, and in particular with the nature of Federal Indian law in the United States. The second half of Chapter 2 reviews the place of the Arctic in the Western imaginary, and argues that an "affect of latitude" is essential to understanding the colonial and contemporary landscape. I also review how the Arctic has been more recently enlisted in narratives of environmental apocalypse, and lay the foundations for my argument about the function of apocalypse as a

mirror rather than a window. At the end of this chapter, I establish an epistemological orientation toward the importance of locating power, fear, and damage in bodies and landscapes, following feminist theory (Haraway, 1988; Plumwood, 1993). These convictions guide my analytical framework for the duration of this dissertation.

Chapter 3 details the methodology undertaken in my fieldwork. I begin with an overview of my epistemological framework. I then discuss how I received invitations to partner with two Alaska Native villages for this research. I discuss the complicated landscape of navigating ethical approval and obtaining consent, and of conducting an ethnography in a place where research fatigue and suspicion of researchers are widespread. I also mention the role that Covid-19 played in my decision-making. This chapter also provides an in-depth background to the history of research with Indigenous Peoples in the United States. I discuss past traumas and the resulting bureaucracy of institutional review boards and ethics protocols, and consider what impacts these have on junior scholars like me, working without a larger team, and without Indigenous scholars overseeing my work.

Chapter 4 discusses environmental ethnography, a term I coined to describe a key part of my epistemological approach, which I found particularly important to developing a means of considering apocalypse in the High North. Environmental ethnography emerged from my attempt to grapple with the age-old problem wherein landscapes "are both real, that is, profound in their physical effects on mankind, and not real, but mere projections, artifacts of human perception" (Lopez, 1986: 256). Environmental ethnography is my way of listening to the landscape, indulging a moment of "naïve realism" (Bennett, 2004: 349) in an effort to grapple with, on the one hand, narratives about the Arctic's ongoing and accelerating collapse, and on the other, an indomitable beauty and sense of vitality that persists in the landscape. More personally, environmental ethnography is my effort to bring some of the brilliance of writers like Barry Lopez into conversation with the more staid environmental scholarship that contemporary geographers too often mistake as cutting-edge, when they are in fact a generation or more behind the genius of 20th century environmental thought. Throughout this chapter, I lean heavily on the concept of multispecies ethnography as a foil, while identifying some of the pitfalls of the multispecies framework. I find that, in the same way that Arctic apocalypse narratives risk reproducing high modernism's prejudices toward the landscape writ-large, multispecies ethnographies often risk falling into precisely the same trap by reducing the landscape into an inert canvas.

Chapter 5 is the nucleus of the most literal and infrastructural component of this dissertation. It explores the colonial politics of climate adaptation governance in two Indigenous communities in Norton Sound, which I call Sinuk and Pastolik. In this chapter, I explore and develop two concepts. The first, micropolitics, draws attention to the ways in which the conduct of colonial government (distinct from its policy aims or directives), determines outcomes for colonised communities. The second, capacity sharing, is a proposed alternative for bridging the "capacity gap" (Minnes and Vodden, 2017) that often characterises colonial government, and problematically frames marginalised communities as responsible for their own political salvation. This chapter also brings many of the topics raised in this dissertation into conversation with scholars of coloniality, specifically Glen Coulthard, Kyle Whyte, and Frantz Fanon.

Chapter 6 completes the bridge between the literal and allegorical halves of this dissertation. It focuses on fear of climate change, placing Indigenous perspectives from Norton Sound into conversation with more global, placeless narratives of climate change that predominate in scholarly discourse. In this chapter, I focus in particular on what I call "infrastructural fear," which I contrast with "existential fear." This chapter relies heavily on Indigenous ontologies of apocalypse, ranging from oral accounts in Iñupiaq and Yup'ik tradition to more contemporary analyses, particularly by Indigenous scholars including Kyle Whyte and Andrew Curley. It places these ethnographic accounts into sympathetic conversation with feminist-materialist accounts, most notably via Donna Haraway, to look more openly at the embodied and situated knowledges of climate change that abound in the High North.

Chapter 7 brings a theoretical close to this dissertation, turning away from the Arctic and focusing a critical gaze on Western apocalypse narratives and scholarship. In this chapter, I engage most directly with Hannah Arendt, Susan Sontag, Bruno Latour, Déborah Danowski, and Eduardo Viveiros de Castro to scrutinise the rise of the modern apocalypse narrative, and speculate about its endogenous origins within the Western psyche. I lean, gently, upon Freud and Kierkegaard to offer a disobedient hypothesis about the origin of "climate dread," offering a heterodox counter-narrative to the uncritical projections of doom that have become commonplace even among critical scholars. Ultimately, I suggest that climate change has become a meaning-making device for alienated individuals who are seeking an escape from the "unremitting banality" and alienation (Sontag, 1961b: 224) of post-industrial urban life.

I close this dissertation with a concluding chapter, pointing to future research directions and identifying possible limitations with the research presented here.

In the pages that follow, I ask us to look carefully. To notice that the 21st-century climate frontier almost perfectly overlays the frontier of power and empire of the 20th century. They are different maps for the same territory. When the world's affluent project their apocalyptic anxieties onto the actual climate frontier, they erase these histories that came before, the wounds that still ache, and the injustices that remain. As if the world were flat. As if we were all equally vulnerable.

The colonisation of Alaska is now breaking onto the shores of the so-called Anthropocene. This history runs right up to the present. As recently as 1962, an entire Alaska Native village was set ablaze while its residents were out at their summer fishing camps, to make way for a new port (Jenkins, 2015). The declaration that climate change has inaugurated a new world rings true only for the privileged, who, until recently, took for granted their comfort, clean air, and well-stocked grocery stores. But for the rest of the world, this is nothing new. The notion that climate change has inaugurated a new era, much less a new geologic epoch, is squarely at odds with the experiences of people on the actual climate frontier. What difference does it make if it is caused by men with guns or men with gasoline?

2. Orientation: Or, Traversing Alaskan Geographies

Part I—Colonial Geographies: Legal and Climatic

Insofar as this dissertation grapples with colonial politics, it bears noting that the legal structures of colonialism vary wildly from one jurisdiction to another. For example, in Canada, the colonial government held that any inherent sovereignty possessed by First Nations was unilaterally extinguished by the Crown. It was not until the Constitution Act, 1982, that inherent sovereignty and unextinguished aboriginal rights were formally recognised (Asch and Macklem, 1991). In the United States, however, colonisation took a markedly different trajectory. In the early days of the British invasion, colonists were generally untroubled by the question that stirred so much controversy among the Spanish, specifically: were Indigenous Americans humans (in the sense of having souls)? In 16th-century Spain, the great humanist Bartolomé de Las Casas led a highly public debate to ask which obligations, if any, the Spanish Crown owed to the colonised Americans—the answer was assumed to hinge upon whether the colonised subjects were human. ("All people of these our Indies are human," Las Casas insisted, "and they equalled many nations of this world that are renowned and considered civilized, and they surpassed many others, and to none were they inferior" quoted in Case and Voluck, 2012: 10.) Eventually, the Spanish consensus emerged that no, Indigenous Americans were not humans in the sense of being political entities; as a result, the Spanish reasoned that no valid claims to the Americas prefigured the Spanish arrival, and they eagerly and genocidally claimed much of the New World for the Spanish Crown.

The British held otherwise. "Both military pragmatism and moral principle led early North American immigrants to seek indigenous lands and resources by negotiation rather than conquest" (Case and Voluck, 2012: 53). These European invaders waged war against Tribes like they waged war against each other: cruelly and brutally, but with the ruling classes' macabre commitment to diplomacy and the peculiar form of decorum that grew out of the battlefields of Europe. Historians of Indigenous America call this the "treaty era," or as a time

of “treaties among equals” (Johnson, 1997: 1021). If that sounds euphemistic, it bears remembering that the British colonists could ill-afford to fight both the French (and later the English) while also battling the formidable Indian Tribes up and down the Eastern Seaboard. From the founding of the United States until about 1815, it was common practice for Indigenous leaders to meet with the political leaders of the British invaders as nations among nations to negotiate peace terms and allegiances (see Figure 2). Treaties were signed. War crimes were condemned.

Figure 2: Penn's Treaty with the Indians (1771-1772) by Benjamin West. Pennsylvania Academy of the Fine Art.

In 1763, a mob of drunken British men in Pennsylvania murdered twenty Indigenous Conestoga men, women, and children in cold blood (Britannica, 2015). The victims had been residing peacefully alongside the British for several generations. Their murder triggered an outrage. John Penn, the eponymous governor of Pennsylvania, offered a reward for the capture of the murderers and tasked Benjamin Franklin with organising a militia to head off the Paxton Boys’ next attempted slaughter. Franklin had been one of many to express alarm at the murders, asking rhetorically,

> If an Indian injures me, does it follow that I may revenge that Injury on all Indians? It is well known that Indians are of different Tribes, Nations and Languages, as well as the White People. In Europe, if the French, who are White People, should injure the Dutch, are they to revenge it on the English, because they too are White People? (Engels, 2005: 365–366)

Franklin's humanist attitude was hardly universally shared, but it characterises the manner whereby the leaders of the British invaders dealt with Indigenous Americans: if not as equals, then at least as citizens of foreign nations. That premise animated the development of the young American nation's legal and political relationship with Indigenous nations.

As the 19th century progressed, the United States became increasingly hostile—and then outright genocidal—in its relationship with Indigenous Americans. Treaties were still signed, but increasingly under duress of the Indigenous parties. Forced removals became standard practice, and the new American nation exercised any means necessary to satisfy its rapacious appetite for land. But the Treaty Era had created a legal framework that proved remarkably durable in American jurisprudence; even as American soldiers and militias were massacring American Indians, a legal philosophy protecting Tribes' inherent sovereignty was incubating and coalescing under common law. In 1830, the United States Supreme Court was asked to decide if the State of Georgia had legal authority to regulate activities that took place on Cherokee land. The Court ruled almost unanimously that states do not have criminal jurisdiction within Indian nations, even when those nations fall entirely within the borders of a given state's territory. Chief Justice John Marshall, writing for the Court:

> the settled doctrine of the law of nations is, that a weaker power does not surrender its independence—its right to self-government—by associating with a stronger, and taking its protection. A weak state, in order to provide for its safety, may place itself under the protection of one more powerful, without stripping itself of the right of government, and ceasing to be a state (*U.S.*, 1832: 520)

With those words, the United States committed itself to defending the sovereignty of Indigenous Americans in perpetuity—a commitment that would be inconsistently upheld, but never denied in principle.

Even as the ink dried on the Court's decision, the United States' attitude toward Indigenous Americans was undergoing a radical transformation. In the 19th century, European invaders left behind the decorum of nation-to-nation warfare and embarked on a straightforwardly genocidal campaign. Under the leadership of men like President Andrew Jackson, Tribes up and down the East Coast were forced further and further west under penalty

of death. For two decades, the newly formed State of California undertook an unvarnished campaign to kill or expel all Indians within the state; Shasta City, California, reportedly offered a bounty of five dollars per Indian head (Magliari, 2023). The US Army supplied ammunition to private citizens to decimate the entire North American buffalo herd, which was the main source of food for the Great Plains Tribes. “Kill every buffalo you can!” said a colonel to a hunter. “Every buffalo dead is an Indian gone” (Merchant, 2007: 20).

The Treaty Era was over, and the Reservation Era had begun. Devastated by disease and war, and often gripped by famine, Tribes were forced into smaller and smaller tracts of marginal land, often hundreds of miles away from their homes. When one of the next major cases to deal with Indigenous sovereignty came before the Supreme Court, the unanimous opinion held that the United States owed a “duty of protection” to its Indigenous nations: “From their very weakness and helplessness, so largely due to the course of dealing of the Federal Government with them and the treaties in which it has been promised, there arises *the duty of protection*” (*U.S.*, 1886: 384).

In the years that followed, the Supreme Court, Congress, and various presidents would elaborate a legal doctrine that articulates the United States’ responsibilities to Indigenous Americans. Today, four general principles are consistently re-articulated in Supreme Court cases and legal textbooks (Case and Voluck, 2012: 6; Fletcher, 2014). First, Indigenous Nations do not derive their sovereignty from the federal government; instead, their sovereignty is inherent unless explicitly extinguished by Congress. Second, Tribes are entitled to their land by “Aboriginal title,” unless the federal government acts to take that title away—in which case they must be compensated for any takings. Third, U.S. states have no power over Indian Tribes—instead, Tribal governments have a “nation-to-nation” relationship with the federal government. And finally, in the wake of the destruction wreaked by European invaders, the United States has a responsibility to provide protection and services to citizens of Tribal Nations. Today, this includes supporting Native government, health care, education, and infrastructure—a similar set of responsibilities that states have to their citizens, albeit administered by a distant colonial entity with only a sliver of electoral accountability.

More generally, American Indian nations generally have broad authority to exercise sovereignty over Native land and Tribal members. Tribes have civil jurisdiction over both Indians and non-Indians and criminal jurisdiction over Tribal members. In recent years, a growing body of common and statutory law has affirmed a narrow “extraterritorial reach” of Tribal jurisdiction over Tribal members—i.e., over Tribal members residing outside of the

geographical boundaries of a Reservation (Christensen, 2019)—in the same way that a nation retains jurisdiction over its citizens even when those citizens are abroad. Generally speaking, Tribes have the authority to levy taxes, write and enforce laws, implement education and healthcare programs, regulate fishing and hunting, and exercise authority over any number of domains—but only on Tribal lands. In an 1896 case, the Supreme Court found that the United States Constitution does not even apply to Tribes because their sovereignty predates the Constitution itself (*U.S.*, 1896). (Many of the legal principles spelled out in the US Constitution were later imposed by Congress upon Tribal Nations via the Indian Civil Rights Act of 1968.)

Despite these bedrock legal principles, Tribal sovereignty continues to come under attack in the United States. Conservative legal activists have sought to challenge the legal and political status that Indigenous Americans hold, and their cases are regularly brought before the Supreme Court, sending ripples of anxiety across Tribal communities. These arguments have centred on a grotesque reading of colonial politics, arguing that Federal Indian Law is premised upon a race-based classification that ought to be prohibited under the United States Constitution's 14th Amendment, which prevents such racial discrimination. Needless to say, citizenship in a Tribe is a strictly *political* classification. Indian Tribes are free to decide who is eligible for Tribal citizenship, and those criteria may or may not have a race-based component—for example, some Tribes that held people of African descent as slaves later granted those slaves and their descendants Tribal citizenship. In 2022, the latest such challenge to come before the Supreme Court was struck down 7-2 (*U.S.*, 2023).

Why raise these legal issues? Because in a dissertation that is fundamentally concerned with the geographies of colonial power along a contemporary frontier, it bears highlighting that sovereignty is under continual contestation—and there are many powerful people in the American colonial government who view 21st-century Indigenous sovereignty as an affront to their particular notion of equality and justice in the present and future United States.

Alaska and Federal Indian Law

While Federal Indian Law took shape across the 19th and 20th centuries, Alaska was in a state of legal purgatory. Alaska was not admitted to statehood until 1959; as a result, questions over legal jurisdiction were easily brushed aside or dealt with on an *ad hoc* basis. In the interim, the U.S. Court of Claims ruled that the Treaty of Cession in 1867, which formalised the U.S.'s acquisition of Alaska from Russia, did not extinguish aboriginal title (Berger, 1985: 22). It bears mentioning that up until 1959, in the entire history of the American Indian genocide, the

United States had never once extinguished aboriginal title without compensation. The newly-created State of Alaska looked hungrily upon hundreds of millions of acres of land; the state had been granted the right to claim 103 million acres—'which are vacant, unappropriated, and unreserved' (quoted in Berger, 1985: 22)—but it was glaringly obvious to legal observers that under long-established principles of Federal Indian Law, Alaska Natives exercised a valid claim to much of these lands.

The issue took on new urgency when oil was discovered in Prudhoe Bay in 1968. Bringing that oil to market would require building a nine-hundred-mile pipeline from the North Slope to the Gulf of Alaska (Berger, 1985). Before breaking ground, developers wanted assurance that the land selected for a pipeline would not become subject to ownership claims by Alaska Natives. The oil at stake was sufficient to momentarily bring Alaska into the political field of view of Congress, which set out to finally resolve the issue of aboriginal title in Alaska. The result was the 1971 Alaska Native Claims Settlement Act (ANCSA), which gave Alaska Natives title to 44 million acres of land across the state, in addition to $1 billion in financial compensation. In exchange, the federal and state governments appropriated the remaining 321 million acres of land in Alaska—at a price of roughly $3 per acre ($7.40 per hectare).

ANCSA was negotiated during the tail end of the "Termination Era" of Federal Indian Law, when the United States was trying to dissolve Tribal Nations and extinguish their sovereignty altogether. The United States Senator from Alaska, Ted Stevens, who is widely credited with shepherding ANCSA through Congress, had come to politics through his work in the US Department of the Interior, where he had contributed to the federal government's termination agenda. As late as 2003, the Senator said to a crowd gathered at the Alaska Federation of Natives annual convention, "Tribal sovereignty is not the answer to the problems Alaska Natives face" (Stevens, 2003).

This scepticism toward Tribal sovereignty dovetailed with the Cold War politics of the late 1960s. Tribal sovereignty was associated with collectivisation, which was seen as anti-capitalist, anti-individualistic, and by extension, anti-American. The result was that ANCSA, rather than creating a system of "domestic dependent nations" to mirror Tribal Nations in the Lower 48, embarked on a convoluted experiment in colonial social and political engineering.

In the Lower 48, most Tribes' lands are held "in trust" by the United States government, which is obligated to protect that land in perpetuity and manage it in accordance with a "trust responsibility" that is, by now, well-articulated in common law (Case and Voluck, 2012: 22). By virtue of being held in trust, these lands are regarded as "Indian Country," depriving the

state of general jurisdiction and creating the legal preconditions for the exercise of Tribal sovereignty. The trust responsibility includes the federal obligation to 1) protect Indigenous lands, 2) provide key human services, 3) protect Indigenous subsistence hunting and fishing, and 4) protect Indigenous sovereignty. ANCSA specifically sought to subvert that process, and it did so by ensuring that the 44 million acres of land that were transferred to Alaska Natives were transferred as fee-simple lands rather than as trust lands, meaning they were owned outright as private property. A staff member of the US Senate who helped design ANCSA later testified that the "mechanisms that we chose, of how the land was allotted and the money provided were really rooted, themselves, in what I think we were trying to accomplish in a social engineering way" (quoted in Case and Voluck, 2012: 189).

The consequences of that decision are too numerous to fully explain here, but for our purposes, the most significant ramification was to cast into profound uncertainty the status of Alaska Native Tribes. ANCSA had created a multi-headed monster of Tribal governments—each village (over two hundred of them) had a municipal government, a Tribal government that was landless, a village-specific "Alaska Native Corporation" that owned surface rights to land, and a regional Alaska Native Corporation that owned subsurface (i.e., mineral) rights. Rather than clarify the status of Alaska Natives as Tribal citizens, it turned Alaska Natives into shareholders of their regional and village corporations. In this way, collective ownership of land was mediated through the most classically capitalist institution of all: shareholder equity. ANCSA placed a twenty-year moratorium on the sale of stock until twenty years after the passage of the law. But beginning in 1991, any shareholder (i.e., almost any Alaska Native) would be able to sell their shares freely, and by extension, equity in the 44 million acres of land would become available to the highest bidder, so long as a willing seller could be found. In 1988, Congress amended ANCSA to extend the restriction on the sale of ANCSA stock, essentially protecting Native ownership of Native lands.

Throughout this time, the legal status of Alaska Native Tribal governments remained an unanswered question. From the 1970s to the early 1990s, the US Department of the Interior "vacillat[ed]" (Case and Voluck, 2012: 49) on the legal status of Alaska Native Tribes—namely, could a landless Tribal government still be a sovereign domestic dependent nation? Finally, in 1994, Congress clarified the issue by passing the Federally Recognized Indian Tribe List Act, which clarified that Alaska Native Tribes are, indeed, Tribes—although without land, they could not exercise many of the key tenets of sovereignty available to Tribes in the Lower 48.

The importance of this act should not be understated. After two decades of trying to eliminate the political status of Alaska Natives and their governments, Congress affirmed that although ANCSA extinguished aboriginal title in Alaska, it did not extinguish the inherent sovereignty of Alaska Native peoples. This basic principle had already been articulated with respect to Lower 48 Indians, including by Supreme Court Justice Felix Cohen, who wrote,

> Perhaps the most basic principle of all Indian law… is the principle that those powers which are lawfully vested in an Indian tribe are not, in general, delegated powers granted by express acts of Congress, but rather inherent powers of a limited sovereign which has never been extinguished. (Cohen, 1942: 122)

Fifty years after the passage of ANCSA, there are over two hundred federally recognised Tribes in Alaska.[2] Unlike in the Lower 48, where reservations may span millions of acres, each Alaska Native Tribe is associated with a single Alaska Native village, mostly remote communities with fewer than 1,000 residents. These villages are distributed across the state, itself an area three times the size of France. Most villages are not connected to the North American road system and are accessed instead by small airplanes, and less frequently by snowmobile and boat. A consequence of this political fracturing is that Tribes often struggle to exercise sovereignty—in the same way that any collection of three hundred Americans would struggle to go toe-to-toe with the federal government. In 1984, the president of the Alaska Federation of Natives wrote,

> What has fallen on Native people and their institutions during the past thirteen years is a legal and administrative burden so overwhelming that in many ways implementing ANCSA has become an end itself... The entire effort has drawn off tens of millions of dollars which more properly could have been put into business investments, human-resource development, communications between stockholders and corporate leaders, and training and technical assistance for village corporation personnel... We now have villages which are almost broke from going through the steps of incorporation, corporate elections, enrolments, stock issuances, land conveyances, CPA audits,

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[2] Following local convention, the terms "Tribe," "Tribal government," "community," and "village," are used in the following manner:

Tribe: A federally-recognised Indigenous nation within the United States, inclusive of its enrolled members.

Tribal government: The institutions, composed of Tribal members, exercising authority for Tribal affairs.

Community: The broader social context of a given Tribe, extending beyond those who are enrolled members, and encompassing family and social relations that may extend beyond the limited geography of one Tribe.

Village: Shorthand for "Alaska Native village." A small, majority-Alaska Native community (usually with fewer that 1,000 residents), in rural Alaska, inclusive of its land and infrastructure.

> meetings, decisions, public reporting, etc… But they have implemented ANCSA. (quoted in Case and Voluck, 2012: 179)

This remains broadly true to this day—the crushing weight of ANCSA-imposed bureaucracy has become a significant drain on Alaska Native governing capacity. As a result, the right to self-government exists but is often under-exercised. For example, one in three Alaska Native villages does not have a single Tribal police officer (Hopkins, 2019). In many instances, Tribes in Alaska may be unaware of the degree of sovereignty guaranteed to them under statutory and common law. In other instances, federal support for Tribal self-determination has been so sporadic as to dissuade Tribes from exercising or expanding broader sovereignty in a number of domains—for example, by taking land owned by a corporation and converting it from fee-simple to trust land, which in some respects would greatly expand Alaska Native sovereignty.

In sum, Alaska Native sovereignty remains politically—if not legally—contested. It was only in 2022 that the State of Alaska formally recognised Tribal sovereignty. Tribes themselves, often hampered by the bureaucratic jigsaw imposed by ANCSA, now struggle to effectively make demands upon the federal government to honour what is widely known as the "trust responsibility" that comprises the federal government's continued obligations to Alaska Native people. As I explore in subsequent chapters, the changing political and physical landscapes of Alaska are putting an additional strain upon many of these fifty-year-old institutional relationships, raising the question of whether climate change itself could provide leverage for Tribes in Alaska to expand their sovereignty beyond the boundaries imposed by present-day capacity constraints.

Alaska Native Villages

It is often heard that there are just two roads in Alaska: one that runs South-North from the Kenai Peninsula in the Gulf of Alaska to Prudhoe Bay on the Beaufort Sea, and another that runs East-West from the border with the Canadian Yukon Territory to Anchorage. With a couple of exceptions, this is basically true. Alaska has 6,181 miles of paved road; by contrast, Cambridgeshire has 2,600 miles of road. Most Alaskans live on the North American road system—in fact, most live in the Anchorage metropolitan area. But nearly 20% of the state lives off of the road system in communities that are only accessible by plane, boat, or snowmobile (Hahn et al., 2022).

Of those communities, a further subset are Alaska Native villages, a term used to describe communities that were historically Indigenous settlements, and which remain majority-Indigenous communities. Some communities, particularly in Southeast Alaska, have experienced such an influx of non-Natives as to no longer be majority-Indigenous; but in the vast majority of the state, Alaska Native villages are almost entirely comprised of residents of Indigenous descent. Often these residents will be joined by non-Natives who are hired to work at the school or local healthcare facility; generally, these non-Native residents exist in villages on a semi-nomadic basis—travelling to another home in a non-Native community during breaks from work.

For several reasons, most Alaska Native villages are sustained by a "mixed economy" (BurnSilver et al., 2016), in which livelihoods are sustained by a mix of subsistence activities and market exchange. These reasons include—among many others—the preeminent cultural value placed upon subsistence hunting and harvesting and the limited opportunities for wage labour. A study of two Western Alaska Native villages found that in 1994 residents harvested an average of roughly 700 pounds (320 kg) of wild food per person, per year (Magdanz et al., 2002). The same study recorded an average annual household income of roughly $25,000 per year, of which about 70% came from employment and the remainder came from public or Tribal sources. Two-thirds of employment-related income derives from public-sector employment.

The nature of this arrangement can lead to a situation that, to an outsider, appears as a mix of abundance and scarcity. When wild animals arrive as expected, and in favourable constellations with the environment—sea ice, storm patterns, rainfall, etc.—village residents are able to "fill their freezers," a synecdoche for having abundant foods. But abundant food can accompany poverty in the cash economy. Despite dogged efforts to neoliberalise Alaska Native communities, the basic tenets of capitalist wage labour have advanced only haltingly in village communities. Writing in the 1990s and reflecting on the impacts of ANCSA, Gigi Berardi notes that

> The cultural geography of much of Village Alaska does not easily accommodate business ventures for private gain. Subsistence activities remain an integral part of Alaska Native culture. In general, there is no well-developed market system (there are few middlepersons). Typically, labor is given as an obligation of life; it is not a commodity that is bought and sold in a village marketplace. (1998: 98)

Due to this confluence of factors—economic geography, cultural geography, the subsistence tradition, and others—private-sector employment in Alaska Native villages is generally a sliver of what it would be elsewhere in the United States. Moreover, the overwhelming share of labour-related cash income tends to be from the public sector. Because public sector jobs are scarce, unemployment—as measured by labour statistics—tends to be high (Goldsmith, 2008). Moreover, the high cost of goods and services in Alaska Native villages severely depresses the purchasing power of village residents. The price of a basket of food (in the economic metric sense) can be double the price in metropolitan Alaska (Goldsmith, 2008), and nearly triple the price in the Lower 48 (First Nations Development Institute, 2018).

A further twist to the abundance-scarcity dualism in village Alaska is the extreme wealth concentrated in private- and public-sector institutions, which can coexist alongside severe conditions of poverty. For example, many schools in Alaska Native villages are well-funded and brimming with extravagant technology, like digital whiteboards. In Norton Sound, Alaska, board members of the local hospital and housing cooperative are treated to annual wintertime retreats in faraway locations like Hawaii. The Bering Strait School District owns a Beechcraft King Air, a 10-seater aeroplane, and employs a pilot to take students to compete in school sports against other villages in the district. These expenditures occur in communities where many families lack indoor plumbing and tuberculosis is endemic.

Finally, the economic landscape created by ANCSA—specifically in the form of village and regional Alaska Native Corporations—leads to an extraordinary economic topography across Alaska's 229 Native villages. From the outset, the corporations to which ANCSA allotted land were intended to pay dividends to "shareholders"—every Alaska Native person alive at the time of ANCSA's signing was made a shareholder of their village and one of twelve (later thirteen) regional corporations. Many Alaska Natives have barely received any financial gains from this arrangement—particularly those belonging to regions where natural resource development is scant. One corporation only paid dividends three times in a twenty-five-year period; the largest payout totalled just $225 for the average shareholder (LaFleur and Grabell, 2011). In other parts of the state, the arrangement has generated considerable wealth; the Arctic Slope Regional Corporation, for example, is among the 150 largest private companies in the United States and has paid over $1 billion in dividends to Native shareholders—who today number roughly 13,000. Also in the North Slope, the village corporation associated with Nuisqut, Alaska, pays its shareholders roughly $30,000 in annual dividends, largely due to a lucrative royalty agreement with ConocoPhillips (Herz, 2019; Sullivan, 2021).

This jagged economic terrain requires a certain humility when undertaking ethnographic or geographical research in Alaska. The Bering Strait region, where this dissertation is anchored, has a relatively poor regional Alaska Native Corporation—dividends in 2023 totalled just $1,100 for the average shareholder. Moreover, most village (not regional) corporations in the Bering Strait region have relatively little financial throughput. This also has knock-on consequences for local tax revenue, which determines the amount of resources available for any number of key local government functions. The North Slope Borough, for example, collected a staggering $200 million in tax revenue in 2006. The neighbouring Northwest Arctic Borough, with 25% fewer residents, collected just $9 million in local tax revenue in the same year (Goldsmith, 2008).

The mixed economy of Alaska Native villages cuts across these disparities in remarkable ways. Indeed, the mixed economy should not be understood strictly as a response or adaptation to rural, colonial poverty. One study recently sought to ascertain if Alaska Native mixed economies were transition or persistent; the anthropologists hypothesised that if the mixed economy was transitional, then high rates of successful involvement with market activities would be negatively correlated with subsistence activities. They found the opposite to be true: "high-income households are disproportionately high-harvest households" (BurnSilver et al., 2016: 6), suggesting that the mixed economy is an expression of a desire to live both within the broader economic assemblage of the United States, and a concomitant desire to take part in the practices of self-sufficient, land- and sea-based subsistence that are central expressions of Indigenous livelihoods and identity (Apassingok, 1998; Berger, 1985; Bodenhorn, 1988; Jolles, 2002; Sakakibara, 2017).

Projections of Power in the Contemporary Arctic

In rural and remote Alaska Native communities, power is invariably projected across great distances. How power functions in these spaces, and how Alaska Natives engage and sometimes resist these systems, are both historical and geographical phenomena. Tracing these lines of power is made particularly difficult by the complex political landscapes in the High North. Here, military power, colonial power, biopower, and resource competition all collide in ways that belie the region's onetime reputation "as a place of no particular political interest" (Joenniemi, 1989: 111).

Geopolitically, Arctic politics have historically been exogenous, imposed from afar. "The Arctic agenda is not determined on the spot by the realities of the North," writes

Joenniemi. “Instead it is a projection of certain specific issues that dominate the East-West consciousness in general” (1989: 111–112). These issues, such as military strategy, resource extraction, and surveillance technology, have come to shape the same Arctic landscapes that are sometimes extolled as pristine wilderness. In Nome, the low mountain that rises from the city is capped by looming concrete structures, remnants of Cold War-era radar equipment. The character of the Arctic as “a prime military-strategic battlefield” or “an arena for strategic confrontation and nuclear rivalry” (Joenniemi, 1989: 111–112) has endured even after the end of the Cold War. During my time in Nome, the United States federal government approved a $600 million project to deepen the Port of Nome to accommodate deep-draft vessels, including any U.S. military ship smaller than an aircraft carrier (Newcomb, 2024). The project will create the first U.S. deepwater port in the High North, almost sixty years after the U.S. Atomic Energy Commission proposed using nuclear explosives to excavate a port at Cape Thompson (Farish, 2006). The proposal, known as Project Chariot, was ultimately abandoned, but not before US Geological Survey scientists quietly conducted a “radioactive tracer experiment” (US Dept. of Energy, 2022: 1), during which they deposited contaminated soil from the Nevada Test Site at Cape Thompson to study how the radioactive material would be transported across the tundra. This radioactive material was abandoned at Cape Thompson, but decades later became the subject of a national controversy when activists and scientists claimed that elevated cancer rates in the nearby Iñupiaq community of Point Hope were linked to radiation poisoning. In 1992, *The New York Times* carried the headline: “Eskimos Learn They've Been Living Amid Secret Pits of Radioactive Soil” (Egan, 1992). The knowledge controversy that followed—focused on whether the cancer was attributable to the radiation, (Edwards, 2008)—showcased a characteristically Arctic collision between geopolitics and biopolitics, illustrative of the unusual landscape of power in the High North.

The typical “hard power” imaginations of the Arctic—as a battle arena, resource landscape, throughway, scientific laboratory, or surveillance station—have often struggled to reconcile with the fact that Arctic is also a homeland. This has led to fraught biopolitical encounters, particularly when Indigenous communities are “in the way” of would-be infrastructural developments. The most contemporary instances of this conflict involve Arctic mining and fossil fuel developments, such as proposals to drill for oil in the Arctic National Wildlife Refuge or to mine for copper in the Alaskan Interior. Such conflicts often activate decidedly biopolitical questions, e.g., about rights exist to subsistence fishing and hunting, and when extractive industries threaten the health of local communities. (These are similar

questions to those raised by Project Chariot.) These issues are not just biopolitical in the sense that they are concerned with regulating the bodies of subjects on the level of the population—what they do or do not eat; whether they are or are not contaminated with industrial waste—but also because they reproduce Foucault's linking of biopolitics with neoliberal governmentality, whereby neoliberalism "is not understood just as an economic doctrine, but as a governmental form that is directed toward specific objectives" (Gutting and Oksala, 2022).

It would be wrong to suggest that Arctic biopolitics have led to a complete disenfranchisement of Northern communities. If anything, the successful exercises of political power, especially by Inuit groups, have demonstrated the possibility to make demands upon neoliberal governmentality, and in some cases, to have those demands heard. Of these exercises of power, the most notable may be the 1972 Marine Mammal Protection Act, which included a specific carve-out for Alaska Native subsistence hunting of whale and walrus (Langdon, 2020). Another powerful example is the Inuit Circumpolar Council, a quasi-governmental affiliation of Arctic Indigenous Peoples, which holds Observer status at the Intergovernmental Panel on Climate Change and is a Permanent Member of the Arctic Council. The ICC is widely considered to have been a successful political venture, notable for how its exercise of power transcends paradigms of Westphalian statehood (Shadian, 2013; Wilson and Smith, 2011). More recently, especially in North America, Indigenous communities are being invited to participate in "co-management" regimes for land stewardship and conservation (Castro and Nielsen, 2001; Raymond-Yakoubian et al., 2017; Ritts and Wiebe, 2021). Although all of these exercises of power have brought tangible results to Northern Indigenous communities, many of them have also fit within the "politics of recognition" that scholars, most notably Glen Coulthard, have criticised as "reproduce[ing] the very configurations of colonialist, racist, patriarchal state power that Indigenous peoples' demands for recognition have historically sought to transcend" (2014: 3). This critique is explored in greater depth in subsequent chapters of this dissertation.

Norton Sound—A Post-Apocalyptic Landscape

I conducted my research in the Norton Sound region of Alaska. Norton Sound is a vast, shallow-water inlet, a lobe of the North Bering Sea bordered by the mountainous Seward Peninsula on the North and the flatter Yukon River delta on the South. But Norton Sound is also a political-geographical designation, having the same borders as the Bering Straits Native Housing Authority, the Norton Sound Health Corporation, the regional Native nonprofit

(Kawerak, Inc.), and the majority of the Bering Straits Regional Corporation. It is an unusual designation in that it comprises three distinct Indigenous groups: Yup'ik, Iñupiaq, and Siberian Yupik. ANCSA bound together fifteen Alaska Native Villages, the city of Nome, and four diaspora Indigenous communities (King Island, Council, Mary's Igloo, and Solomon) through a neoliberal vision of 1960s and 70s bureaucracy. The past fifty years have been a test of cooperation. True to the corporate aesthetic, most of the key Tribal organisations and service providers are governed by boards of directors, to which each Tribe is allotted one representative, irrespective of the Tribe's size. (It bears noting that the largest Tribe in the region is an order of magnitude larger than the smallest.)

Although Norton Sound may have been along the Pleistocene migration routes that carried the first humans into the Americas along the Bering Land Bridge, it has been continuously occupied by humans for at least the past five thousand years (Prentiss et al., n.d.).; like much of Alaska, the earliest occupants of Norton Sound, prior to five-thousand years ago, may have lived on the margins of human habitability as the Wisconsin glaciation shuddered to an end (Grønnow, 2023). St. Lawrence Island, 80 kilometres off the coast of Chukotka, may not have been peopled until almost two thousand years ago (Crowell and Oozevaseuk, 2006).

By the time that Europeans began visiting the Bering Strait region in the 17th century, the region had become a triple-point—a sort of cultural aulacogen—for three distinct Inuit groups: the Siberian Yupik people of St. Lawrence Island, who share a heritage and language with Indigenous People of the Chukchi Peninsula; the Yupiit (Yup'ik people) of Southwestern Alaska; and the Iñupiat (Iñupiaq people) of Northwestern Alaska and across the coastal North Slope. These various cultures differ significantly in their language, subsistence traditions, and technologies. Ray names three general patterns of subsistence in the region in the 19th century: whaling-walrus, caribou, and small sea mammal hunting (1992: 104). These patterns were dictated by cultural and geographical constraints; for example, Diomede has abundant whales and walrus but no caribou, moose, or bear; settlements near Norton Bay (e.g., Koyuk and Shaktoolik) received relatively few marine mammals and relied much more on caribou and fishing. These geographical differences in subsistence harvesting patterns have persisted into modern times (Magdanz et al., 2002).

At the outset of the colonial period, Norton Sound residents appear to have exercised a high degree of mobility; an anthropologist of Gambell, Alaska, writes that stories of travel suggest "a kind of northern cosmopolitan perspective" (Jolles, 2002: 68). Although folk tales in Norton Sound are rife with stories of warfare between coastal Indigenous groups and inland

Indians, there is scant evidence of actual historical conflict, and it appears that even the Inuit's would-be enemies "enjoyed a restrained friendship" (Koutsky, 1981: 28–29; Ray, 1992: 171) in recent centuries.

As in much of Indigenous America, the arrival of European invaders triggered a multi-generational wave of cataclysm. Across the Americas, the Indigenous population had declined by roughly 95% from the arrival of Columbus to the end of the 19th century (Thornton, 1990: 43). Although this depopulation took place over the course of several centuries, it was often hastened by terrible events—particularly epidemics—that could kill more than half of a population in a single year.

These diseases were slow to arrive in Alaska, however (Fortuine, 1992). The geographical separation and low population density of Alaska had broadly insulated the region from the epidemics that tore across the Lower 48 and much of Canada until the mid-19th century. From the definitive arrival of smallpox in 1838 to the Spanish Flu of 1918, communities in Norton Sound experienced waves of epidemics that could reduce the population of individual settlements by 50% or more (Fortuine, 1992; Ray, 1992: 126). These epidemics disproportionately killed adults and elders, adding to the erosion of cultural history and knowledge as orphans were adopted by Euro-Americans. The Yupiit came to call the 1900 epidemic of flu, measles, and smallpox *yuut tuqurpallratni*, or the Great Death (Napoleon, 2009). Harold Napoleon, a Yup'ik writer, describes the cultural consequences of the Great Death in stark terms:

> Whether the survivors knew or understood, they had witnessed the fatal wounding of *Yuuyaraq* and the old Yup'ik culture. Compared to the span of life of a culture, the Great Death was instantaneous. The Yup'ik world was turned upside down, literally overnight. Out of the suffering, confusion, desperation, heartbreak, and trauma was born a new generation of Yup'ik people. They were born into shock. They woke to a world in shambles, many of their people and their beliefs strewn around them, dead. In their minds they had been overcome by evil. Their medicines and their medicine men and women had proven useless. everything they had believed in had failed. Their ancient world had collapsed. From their innocence and from their inability to understand and dispel the disease, guilt was born into them. They had witnessed mass death—evil—in unimaginable and unacceptable terms. These were the men and women orphaned by the sudden and traumatic death of the culture that had given them birth. They would become the first generation of modern-day Yup'ik. (2009: 129)

Concurrent with the traumas of Old World diseases, the imposition of Western-style education for Alaska Native youth became another wellspring of violence against Indigenous

Alaskans. “The Bureau of Indian Affairs tried to destroy our culture through the education of our children,” write two Iñupiaq leaders (Andersen-Spear and Hopson, 2010: 2). The pattern of acute and chronic abuse that took place at American Indian and Alaska Native schools—the specifics of which are beyond the scope of this dissertation—has become a subject of intense historical discussion in recent years, including in Alaska. Suffice to say, the separation of families and loss of cultural transmission constituted another extraordinary wound for Alaska Native people in the first half of the 20th century.

These collective traumas, in many respects, are a defining element for much of Alaska Native history (Barnhart and May, 2021; Hirshberg, 2008). They collectively place Alaska Native peoples alongside many colonised communities in the sense of living in what Diné scholars Curley and Lister call “already existing dystopias” (Curley and Lister, 2020: 251). In this sense, it is important to understand the present-day Alaska Native condition as being, without any trace of melodrama, generally post-apocalyptic (Danowski and Viveiros de Castro, 2017; Whyte, 2018). Potawatomi scholar Kyle Whyte observes, “U.S. settler colonialism, for example, in a short period of time, inflicted displacement, drastic ecological changes, and lost or disrupted relationships with hundreds of species that indigenous peoples depended on through kinship ties for generations. These changes are more extreme than what many nonindigenous persons fear most about moving beyond 2°C” (Whyte, 2020: 5) It is within that context that I turn to discuss the ongoing and future impacts of climate change in the region.

Norton Sound Villages and Climate Change

Alaska Native communities face some of the most urgent threats from environmental change in all of North America. Rising seas, melting permafrost, intensifying storms, reductions in sea ice, and changes to the availability of plants and animals harvested for subsistence have created dire threats for many of these communities. One report by the US federal government identifies that the majority of these villages are affected by flooding and erosion (US Government Accountability Office, 2009). These geophysical hazards are profoundly amplified by the inadequacy of the federal government’s response to provide desperately needed climate adaptation assistance. In 2009, the GAO government identified 31 Alaska Native villages facing “imminent threats” from climate change, for which wholesale relocation may be required in the near-term future. In the time since, just two Alaska Native villages, Newtok and Kivalina, have begun the process of building infrastructure in a designated relocation site. Of those two, only the community of Newtok has built and occupied

homes at the new site—even so, substantial challenges to full relocation remain unaddressed at the time of publication (Schwing, 2023b).

For clarity's sake, the most proximate climatic threats to existing villages are a combination of erosion, changing storm patterns, permafrost melt, and retreating sea ice. These exert strong environmental pressures in a variety of ways. For coastal communities, the delayed onset of sea ice increases coastal erosion during the fall and early-winter storm period. This exposure is further increased by the intensification of fall storms—driven by rising sea surface temperatures—which bring dramatic storm surges and pose imminent dangers to coastal communities (Vavrus, 2013). For communities located along rivers, melting permafrost has led to untenable destabilisation of housing and other infrastructure. Many of these communities are located on permafrost river banks, which are also rapidly eroding. Finally, it bears mentioning that in parts of Alaska, such as along the Yukon River, the collapse of annual salmon runs poses a profound threat to subsistence traditions and food security—although it is difficult to parse the causality of that collapse between the impacts of climate change versus commercial fishing.

Despite a torrent of media attention (Bennett, 2021; Herrmann, 2019; Marino, 2012), many rural Alaska Natives continue to feel abandoned and marginalised by a "distant bureaucracy" (Marino and Ribot, 2012). Systems that are putatively designed to aid these communities, such as federal grant programs, often prove to be inaccessible, or navigable only with the assistance of professional grant writers and civil engineers. The fundamental principle of self-determination — which is critical to effective Indigenous government (Cornell and Kalt, 2010; Kalt, 2003) — is complicated by a bureaucracy that is broadly out of step with the administrative capacity of small sovereign communities, Indigenous or settler. In 2020, the Alaska Federation of Natives approved a resolution stating, "The regulations and requirements of most federal programs, including FEMA and the Army Corps of Engineers, are developed for the contiguous United States [i.e., excluding Alaska]. By design, they prevent vital resources from being available to our communities" (Alaska Federation of Natives, 2020).

To date, the federal government's response to environmental change in Alaska Native villages has been, by its own admission, inadequately coordinated and underfunded (US GAO, 2022). Several reports by the GAO have pointed to these failures and recommended pathways for change, many of which do not require acts of Congress and could be enacted through executive and agency action (US Government Accountability Office, 2003, 2009, 2020, 2022). These recommendations, and the principles underlying them, are echoed in other government

publications (Status of Tribes and Climate Change 2021; 2018 National Climate Assessment, Ch. 15). A number of academic publications have also pointed to shortcomings and pitfalls in current systems (Bergstrom et al., 2022; Bronen and Chapin, 2013; Marino, 2012, 2015; Pennington, 2023; Ristroph, 2017, 2021; Shearer, 2012). These politics of abandonment are hardly new; they recall John Muir's warning upon seeing the famine on St. Lawrence Island in 1881: "Unless some aid be extended by our government which claims these people, in a few years at most every soul of them will have vanished from the face of the earth" (Muir, 2000). The threat in this instance is not total extinction, as Muir feared in the 19th century, but rather some unknown mix of death and diaspora, as villages are swept away in typhoons or houses collapse into widening rivers.

Some of the most frequently cited barriers to climate adaptation include 1) the high cost of construction in rural Alaska, where the estimated of relocating a single village exceeds US$100 million in many instances (US Army Corps of Engineers, Alaska District, 2006); 2) a scarcity of funding allocated to Alaska Native communities by government entities relative to the need for infrastructure development; 3) poor coordination between a multitude of federal agencies with overlapping mandates; and 4) barriers to accessing federal funds, e.g., through cost matching requirements.

These are policy issues. But behind these hurdles is a historical and cultural backdrop of fraught engagement that creates chronic obstacles to Alaska Native governments partnering with the federal agencies that have the capacity to fund large-scale projects. The friction of working collaboratively across a vast geographic and cultural distance, from rural Alaska to Washington, D.C., underpins the feeling of disenfranchisement in village communities. This leads to poor engagement and coordination, undermining service delivery and disparaging the "trust responsibility" (Case and Voluck, 2012) that the federal government has with Indigenous communities.

The political landscape between colonised Indigenous Americans facing imminent threats from climate hazards and the federal government is so extreme that Whyte asks simply if it might be "too late" for Indigenous climate justice (Whyte, 2020)—given that building relationships of trust and mutuality take generations, while disastrous climate-related impacts are already unfolding in real time.

Part II—The Arctic Imaginary: Affects of Latitude and Frontiers

> "As we gaze into the mirror [wilderness] holds up for us, we too easily imagine that what we behold is Nature when in fact we see the reflection of our own unexamined longings and desires."
>
> — William Cronon (1995: 69–70)

Whereas the first half of this chapter dealt with the background of Alaskan colonial landscapes in a legal-historical sense, the second half of this chapter undertakes a more critical-theoretical analysis. The remainder of this dissertation is dedicated to the furrows where these two geographies—different maps of the same territory—overlap.

The Arctic at the End of the World

Among all landscapes on Earth, the Arctic stands out for its propensity to be fantasized. It is both inaccessible and proximate; impenetrable, but also *right there* in its physicality. The annual flux of sea ice enticed explorers, writers, and artists for more than half a millennium. But in the 21st century, the mythology of the Arctic has transformed. Formerly depicted as pure and sublime, the Arctic has been recast in the public eye as the unfurling corner of a global cataclysm, a staging ground for terrible things to come (Bennett, 2021). "If we cannot save the frozen Arctic," asks Sheila Watt-Cloutier, "how can we hope to save the rest of the world?" (2015: xxvi) In this way, the Arctic becomes a signifier of climate apocalypse (Dickie, 2020). But the quotidian and existential experience of that cataclysm is a geographically and culturally contingent experience. These plural representations, and the uncanny transformation of the Arctic in North American and European media, speak to the fickle attitudes with which modernity regards foreign landscapes. These attitudes parallel well-known analyses of how the European notion of wilderness has undergone tectonic changes over the course of generations (Cronon, 1995; Macfarlane, 2008). This section considers the Arctic's role in supporting narratives of global environmental change. It explores how science and technology are summoned to speak for a landscape by rendering changes legible to media and publics. Finally, it considers how the Arctic, stripped of its status as an ultimate wilderness, mirrors a growing post-Holocene disillusionment with the non-human world as a refuge from humanity's

perceived ills. Through the landscape's fall from grace, we bear witness to the frustrated totality of our own imperfection, a post-Enlightenment cynicism with no counter-narrative at hand.

Figure 3: The "Train to Nowhere"—remnants of a long-abandoned rail line on the Seward Peninsula.

Traversing Arctic Geographies

The Arctic has occupied the minds of humans for millennia. Herodotus recorded stories of a great nation of Hyperboreans (1890, chs. 30-36). Greeks at the time, following a fateful voyage by Pythias, regarded the unknown northlands as beyond their *oikuomene*, or known world (Bravo, 2019). Eventually, the Greeks and Romans came to understand the Arctic as a divided landscape: "a menacing wilderness" of ice and beasts, yielding to an Edenic, warm, open polar sea (McCannon, 2012: 67). Such vivid imaginations persisted, even as explorers pushed farther and farther north. It helped this mythos "that the North Pole, the actual place, was unknown to human eyes," (2019: 136) writes Bravo. If no one with authority could reliably describe the poles, who could definitively say that the wildest and most extravagant claims

were untrue? Safe from prying eyes, the Earth's poles possessed a strong appeal as places for locating narratives and symbols of absolute sacredness and purity.

But as sailors began to lay eyes on the landscape, its mythical qualities endured. According to Henry Hudson, two of his men saw a mermaid during their 1608 voyage (McCannon, 2012: 24); sailors aboard Martin Frobisher's 1577 voyage cruelly investigated an Inuk woman, curious if she was "eyther a Divell, or a Witche" or perhaps had cloven hooves (quoted in McCannon, 2012: 24). The search for the open polar sea endured for many centuries after astronomers documented the poles' perpetually oblique relationship with the sun; the search for such a sea even provided the pretext for several late 19th century expeditions, including the disastrous American 1879-81 voyage of the *Jeannette* (Payne, 2023).

It is even more remarkable that the Arctic mythos has stubbornly withstood the past century of intimate exploration, habitation, and exploitation by industrial societies. Legions of scientists, tourists, and many persons audacious enough to call themselves "explorers" have poked and prodded most corners of this landscape. They have flown in its skies, plumbed its depths, planted flags, and taken selfies. And yet, scholars who study the region are reliably asked by wide-eyed acquaintances, "*Have you been there?*" (see Howkins, 2010). There is a revealing disconnect between *the Arctic*, as imagined by the public, and the Arctic, where one could eat lunch at Burger King in Tromsø and get back to London in time for dinner.

The origins of this disconnect reveal the importance of distance to the Arctic imaginary (Ahlness, 2019; Powell, 2017). In that imagination of the extreme—a figurative antipode—the vision of the landscape becomes almost campy, an invitation to utter difference. "The pure examples of Camp are unintentional; they are dead serious… The hallmark of Camp is the spirit of extravagance" (Sontag, 1961a). Consider a $25,000 luxury cruise through the Northwest Passage, or Santa Claus and his elves, both of which exhibit levels of camp on par with any midnight screening of the *Rocky Horror Picture Show*. Taken together, these are the opposite side of that same coin leads us to experience a certain dissonance at the sight of familiar images in the High North (an Arctic Burger King, for example). That dissonance traces back to centuries of framing the North in antipodal terms, a space of difference and the uncanny (Bruun and Medby, 2014).

Moving into that space, explorers and entrepreneurs sought to prove themselves, often in theatrical performances of masculinity (Bravo, 2019; Eskilsson, 2003; Kangasluoma, 2020). Many of those adventures ended with scores of young men frozen to death or drowned, thousands of miles from home. Back home, they were commemorated as heroes rather than

fools; many are still lauded for their "discoveries" of peopled places, such as the coastlines of the Northwest Passage.

But unlike the European conquest of much of the world, the Arctic was treated less as a wilderness to be tamed—cf. Frederick Jackson Turner's conception of the frontier (Turner, 1950)—and more as a space where humans could only sojourn, inhabiting the place always as visitors and never as residents. Indeed, for Vilhjalmur Stefansson, simply inhabiting the Arctic was itself an expeditionary act (Vilhjalmur. Stefansson, 1921). The attitude recalls the sort of wilderness that was enshrined in United States' law in 1964, which defined wilderness as "an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain" (1964)—a permanent state of exception. It follows then that even the most aggressive colonial activities in the Arctic—whaling, petroleum extraction, and mining—were, and continue to be, structured like tours of duty in a foreign war. (Mostly) men travel to places they considered hostile, for months at a time, living in company housing with the expectation of returning to their more temperate homes. They are not so different from the sailors who set out from European ports two hundred years ago, bound for the same coastlines. Even luxurious tourist operations brand themselves as offering "expeditions" (and often claim to serve some scientific purpose, Taylor et al., 2020). These themes of transience are further entangled in the masculine association with the act of exploration; this further proscribed women and the establishment of domestic life in colonial Arctic spaces (Eskilsson, 2003). It was as though the Arctic were a frontier that would never—*should never*—close.

Towards an Affect of Latitude

Settler colonialism arrived in the High North with a muted enthusiasm. Europeans were content to pillage Arctic landscapes but were reticent to establish homes there. This stands in stark contrast to the colonisation of more temperate places, North America or Australia, where colonisers established capital cities of their empires (Wolfe, 2006). The absence of any city of more than 300,000 inhabitants within the Arctic Circle testifies to the affective encounter that colonial travellers experienced—and still experience—in the High North. Put simply, unlike most of the colonised world, the Arctic remained foreign, both in the eyes of its pillagers and in the view of media and publics in the temperate centres of colonial empires (Bravo, 2019). Why? Something in this encounter dissuaded mass settlement of the region despite its wide breadth of ecologies and geologies, and its abundance of resources, the latter of which were highly legible to visitors even in the earliest encounters. Foreigners' experience of the Arctic

as a place unsuitable for habitation suggests an affective encounter not with the geophysical substance of the land, nor with its flora and fauna, but with latitude itself, experienced in the past and present by would-be settlers. Such an account is essential to explaining the breathless economic exploitation of a colonised landscape that was unaccompanied by acts of homemaking—and to explaining the Arctic's newly-minted role as a bellwether for global apocalypse.

Defining affect

By affect, I mean the more-than-emotional, pre- and post-cognitive, transpersonal, "postrationalist" (Anderson, 2006) capacity of bodies, broadly defined, to *affect* one another. First articulated by Spinoza and developed in greater detail by Ben Anderson, Brian Massumi, Derek McCormack, and others, affect is anchored in the slipperiness of subjective experience, which is only partly captured by the domains of *thought* and *emotion*. Affect is the excess. It begins from the recognition that "the more-than or less-than rational cannot be reduced to a range of discreet, internally coherent, emotions which are self-identical with the mind of an individual" (Anderson, 2006: 735). Put simply, not everything that is felt (consciously or otherwise) can be said to be an emotion or a thought. In any case, emotions and thoughts are normally located within the body, but "affect does not reside in a subject, body, or sign as if it were an object possessed by a subject." (Anderson, 2006: 735) Rather, affect is transpersonal. "Reserve the term 'emotion' for the personalized content," writes Massumi,

> and *affect* for the continuation. Emotion is contextual. Affect is situational: eventfully ingressive to context. Serially so: affect is *trans-situational*. As processional as it is precessional, affect inhabits the passage. It is pre- and postcontextual, pre- and postpersonal, an excess of continuity invested only in the ongoing: its own. Self-continuity across the gaps. Impersonal affect is the connecting thread of experience. It is the invisible glue that holds the world together. (2002: 217)

Affect offers one avenue by which the encounter with the nonhuman can be speculatively read as a meeting between two bodies in which both rational and emotional cognition fail to fully assimilate the felt experience. The excess, the "unbiddenness of qualitative overspill" (Massumi, 2002: 218), defies patterning and sense-making. These encounters are by nature anti-hierarchical and in opposition to strong accounts of agency. They are messy, posthuman, and decentre the image of Man as the arbiter of all experience.

This excess, simmering over like boiling water, is ubiquitous. Affect is the excitement that passes through a crowd of concertgoers when the main act walks onstage (Anderson,

2006): an experience that is shared in common but cannot be located within the body of any one person. Perhaps it is the pull that beckons birds to travel South as the days grow shorter. It is the inscrutable feeling of being watched from behind, or of a child comfortably dozing off in the presence of trusted family or friends. It is the wave that moves through water, which cannot be isolated from the water itself, has no discernible material substance, and yet breaks with astonishing energy upon the shoreline. It is the energy that pulls two people together from opposite sides of the dancefloor. And it is the sprawling expanse of feelings that human interlopers have encountered in the unbuilt environment since before it made sense to speak of an "unbuilt environment." In these encounters, confounded and speechless, and, at a loss for any better word, inheritors of the Enlightenment reach for that term of ultimate excess: *sublime*.

The affective encounter with the Arctic sublime (Bennett, 2021) invites us to take seriously a "speculative ontostory" (Bennett, 2004) in which humans, ice, ocean, land, the orbital plane of the Earth, and the unfailing light of the sun all figure not merely as things with agency (Ingold, 2007), but as planetary forces acting and interacting with little regard for the violent Western delineation between human life *(bíos*), "bare" animal life (*zoē*), and geologic nonlife (*geos*) (Agamben, 1998; Povinelli, 2016). Arriving to Arctic shorelines, foreigners felt and *still feel* awash in an affective overspill in the presence of new shapes, colours, and sensations (Lopez, 1986). The affecting bodies in these encounters, partnered with humans, might be as discrete as the unforgettable sound of a whale's misty breath. Others are celestial, like the lateral movement of the sun in the sky, wheeling across the horizon from left to right rather than up or down. Or the aurora borealis, illuminated by solar winds that travel at a few hundred kilometres per second, taking three days before arriving in the ionosphere. We can and must speculate as to how these not-quite-ineffable affective encounters infected and inflected human visitors. The fate of the industrial Arctic would hinge upon these transpersonal encounters, whose indelible mark upon foreigners was transmitted through story, art, and other media to the rest of the Western world.

What's at Stake?

At stake in this question is a broader issue: when we look to the Arctic, we invariably see a reflection of ourselves. This reflection is partly "our own unexamined longings and desires" (Cronon, 1995: 69–70) (more on that later); but it is also shaped by the landscape—a hybrid encounter that cannot be neatly reduced into rational observation of a physical reality, nor a pure social construction untethered to the actual earth. "Material artifacts we take to be

nature," writes Gavin Bridge, "are best described as 'socionatures' since they are products of processes which are neither wholly social nor wholly biophysical" (2011: 228). That the Arctic wilderness occupies such a different place in the Western imaginary than other wildernesses (e.g. North America writ-large) points to a two-way encounter with the material artifact of the landscape, one in which the land itself participates in the shaping of the encounter, even as humans left their mark upon the landscape. We are wrestling the sublime from its quasi-mystical domain and locating it between bodies—human, celestial, and others—and sorting it into a hybrid geography that is demystified but not disenchanted.

New materialism

Contemporary geographical accounts, particularly in the vein of new materialism, diverge markedly on the issue of how seriously we ought to take the proposition that the land is an active participant in human affairs (Gamble et al., 2019)—put differently, that its *force of nature* is not so different from our own. Here, many scholars fall into a trap. They appropriately interrogate the nature-culture divide, showing that the ontological scaffolds upholding the sterile categories of *the human* and *the natural* are shaky at best. These became the vanguard of a critique of modernist accounts in which nature was "defined by the *passivity of matter* insofar as matter is what is caused or moved by something else: vital and causal forces or natural laws of motion" (Gamble et al., 2019: 116).

But many new materialist accounts don't always clear their own high hurdle, falling back onto ontologies that render landscapes passive stages for human action. This is particularly visible when scholars' commitments to immaterialised forces—especially gender, colonialism, capitalism, class, etc.—create a two-tiered system, whereby certain social forces, ascribed to a disembodied culture, exist on a sort of pre-natural ontological plane. That is, these forces are allowed to exist everywhere and nowhere—precisely at odds with Haraway's demand that we *locate* subjects prior to analysing them (1988). But such accounts sometimes fall back into patterns that characterise aspects of humanity as a sort of emergent super-actor, with markedly more capacity to act than to be acted upon (and to affect than to be affected). Certain totalising narratives trip on their own shoelaces when they describe certain forces—e.g., colonialism—as something that exists beyond the bounds of human bodies and minds. Of course colonialism is real, but it is its very reality that demands that it be located in the realm of the material, the personal, and transpersonal—not in the non-space of the immaterial. These feelings, or affects, are immanent in encounters; they do not exist in a vacuum. Judith Butler

wisely calls for "the recasting of the matter of bodies as the effect of a dynamic of power, such that the matter of bodies will be indissociable from the regulatory norms that govern their materialisation and the signification of those material effects" (1993: 2). Even power must inhabit a body.

In this sense, the "colonial encounter" within the Arctic should hardly be inscribed as an immaterial force, but rather as the messy, individual encounter; the sort that leaves water in one's boots. Writ-large, these things are events, patterns, or affects—there are no forces without bodies, no waves without water. Why not? Because once something is rendered into the pure realm of social construction, its very materiality dissolves. "The performances of humans are not external to those of the rest of the material world." (Gamble et al., 2019: 112) Colonialism in the Arctic, then, would perhaps be more clearly legible as the actions of "bodies that colonise."

Although power is transpersonal—it is, ultimately, an effect—the force that animates it must be found in someplace beyond culture. And because power is relational, that place must be an encounter. Time and space.

Power in the Arctic

Modern Western materialism silenced landscapes, such that even those who till the earth see it as an adversary to be subdued (Povinelli, 2016). It is from this lineage that even self-described posthumanist critical-theoretical perspectives indulge the existence of a supra-human malignancy that marauds across the landscape in search of power and wealth—which often goes by the name of colonial power or capitalism. "While the Anthropocene narrativizes a phase shift in planetary relation—the climate pause is off, geologic realism is on—the intersection of geography, colonial power, and its material space-times establishes an imaginary of arrival in environmental crisis that normalizes a trajectory of colonial power and its subjective forms." I don't strictly disagree with Kathryn Yusoff here, but *where are the bodies?* In the most extreme of these totalising narratives, the human desire to conquer becomes quasi-geologic in its own right—an immovable bedrock, as constant as gravity itself—while the landscape becomes reduced to a foil upon which a universalised framework of racialised and gendered violence is imprinted like a tattoo. Simply attending to the geologic and inhuman is insufficient to level the ontological playing field. That is precisely why these forces must be located in a fleshier account, chiefly following Haraway (1988) and Butler (1993).

I wonder if some of these accounts of human-landscape relationships—in which landscape is the victim and the colonial human marauds—flourish in milder climates, where the patterning of violent remaking of post-Holocene landscapes bears a tragic aura of the inexorable. But the Arctic testifies to the active materiality of the landscape in a different way, showing the forces that existed before human entanglement, and that will persist when our species is gone. The climate, the angle of the sun, the fickle magnetism of the poles, the ice (Hastrup, 2013)—all of these demand an account of geosocial formations (Clark and Yusoff, 2017) that goes beyond a limp handshake between the geologic and the human, and provides breathing room for a bi-directional affective encounter with the geologic, and even the celestial, which push and pull and remake human subjects in contradictory and complex ways.

The fact of the contemporary Arctic, approached obliquely by settler colonialism, should be read as a challenge to dominant narratives. The Arctic invites a materialised account of human-nonhuman relations that is more tender and affective, and less simple and fatalistic than the victim-perpetrator dualism. In Euro-American history, the Arctic landscape tells the story of fear, pain, doubt, frail egos, and uncertain masculinities, generations of men and women separated from each other and their families, willing to risk it all for… what? A legacy of broken and vain men, seeking glory like Achilles, estranged from family and disconnected from the landscapes of their native homes, hoping to lay siege to a modern-day Troy, and later to profit from its treasures—fish, gold, furs, oil, and fame. The Inuit, for their part, dismissed the quest for the North Pole as "white man's business" (McCannon, 2012: 166).

For centuries the landscape rebuffed the explorers. Generations of Arctic visitors learned the slow rhythm of a winter in an icebound ship, reflecting in their private journals about the passing of time, having surrendered, at least in part, to the inexorable polar night. "Not an object was to be seen on which the eye could long rest with pleasure," wrote William Edward Parry in the winter of 1819-20. "The sound of voices, which, during the cold weather, could be heard at a much greater distance than usual, served now and then to break the silence which reigned around us, a silence far different from that peaceable composure which characterises the landscape of a cultivated country; it was the death-like stillness of the most dreary desolation, and the total absence of animated existence" (Parry, 2006). (We shall set aside the fact that Indigenous Americans had inhabited Melville island for two millennia before Parry's arrival.) What Parry describes is an affective experience *par excellence*, an expression of the irreducible alterity of the Arctic landscape.

When we speak of "colonial configurations of matter" (Yusoff, 2019: 3), we must acknowledge that this matter also configures us. This is not to make imperialism disappear with a new-materialist wand, but rather to emphasise that when something as shapeless as the "colonial" is given power over something as shapely as "matter," we are already knee-deep in a particular subject-object ontology. We must acknowledge the impact and its patterning—colonial, racist, heteropatriarchal—but at the same time hold fast in our opposition to endowing the emergence of social facts with privileged positions of cultural and immaterial power. Where is power? In and between bodies. And not just bodies. As I explore in subsequent chapters of this thesis, power also exists in technology—web forms, telephone lines, business cards—that further translate colonial actions, desires, and perspectives into colonial outcomes.

Affective encounters in the High North testify, perhaps more clearly than in any other inhabited landscape, that we are moved by geology. For instance, going to the Arctic is no longer dangerous—not really. Yet humans still populate the Arctic only sparsely. The affect of latitude clearly imposed some profound pressure upon the temperate colonial desire to colonise but not strictly to settle (Wolfe, 2006). Thinking with these affective geologies invites a clumsier vision of human forces. We must avoid the seductive sublimation of geology into gauzy grand narratives of modernity. The planet, with all its topography and fluidity, from ocean to asthenosphere, can only fit into such constrained after being affectively smoothed—a geosocial formation on a flat earth. Attempts to discipline affective geologies by reducing them to the linear and rational structuralism of colonial violence will necessarily fall short. The landscape is only made to "fit" into certain accounts wherein its participation is rendered so passive and inert as to become mostly nonparticipatory—the *geos* slides back into the object ontology. Shifting from this paradigm, inviting topographical and agential complexity, requires moving beyond accounts of agency in the landscape in which agency of the land itself is more or less limited to a dignified version of victimhood.

In the Arctic sublime, though, we are invited to turn the equation on its head. To date, many of our accounts of encounters with the geologic were not reciprocal. Colonialism affected landscapes without itself being affected. But colonialism is a social fact. When we replace that fact with "bodies that colonise," we see just how much these humans were moved and shaped, frostbitten, snow-blind, and awestruck, by the land. How many of them yearned to return "home." Follow the tracks through the snow. See that many of these encounters were mediated by the sun itself and the orbital plane of planet Earth. The affective encounter, ultimately, was latitudinal, directed by patterns in geology and astronomy that have hardly budged in four

billion years. The very fact of the Arctic climate is the result of the orbital pattern of the planet around the sun. The forces have moved and continue to move bodies that colonise in these landscapes; while the sun and the stars themselves, and their journey through the firmament, will never be troubled by our own earthly machinations. This is the opposite of an immovable cultural force shaping a malleable landscape. Here, an immovable celestial force is directing human behaviour.

Chills: Toward an Arctic aesthetic of ruins

Early Encounters

19th- and 20th-century visions of the Arctic trafficked in visions of purity, whiteness, femininity, and naturalness: a virginal frontier. “Though her ribs are gaunt and protruding with the cold starvation of centuries,” wrote Robert Peary, “nowhere else does one get so close to the great heart of Mother Earth as up there in that borderland between this world and interstellar space which we call the Arctic Regions.” (Bravo, 2019: 179). The Arctic was a site of witness to the inhuman sublime, an observation point for this frontier.

A cartoon in the British magazine *Punch* in 1875 depicts a towering female figure, Romanesque in every way, atop a throne carved into a mountain. She sits at ease, upright, in a simple dress and an unadorned crown. Behind her is a starry night sky. The slender fingers of her right hand trail down her side, while her left hand suggestively grasps a long, slender harpoon, pointed skywards. Far beneath her, in the foreground, her subjects—two polar bears—stand at ease. The caption reads: “WAITING TO BE WON: Arctic Expedition Sailed May 20, 1875.” The figure of the Arctic reveals much of the European anxiety at the time. This included a tangled mess of concerns about the feminization of urban men, a complex anxiety that the experts of their time diagnosed as resulting from an alienation between men and nonhuman nature. This was often expressed as a nobler concern for the future of Euro-American society; but it masked a deeper anxiety, experienced at the individual level, that a life lived indoors turned men into spiritual eunuchs: “soft, succulent people,” to borrow from the Scottish-American naturalist John Muir (1891).

Arctic conquest reached a fever pitch contemporaneously with these anxieties. The penetration of the Arctic frontier was rendered, not so subtly, as a consummation of endangered European masculinity. “The mythic frontier individualist was almost always masculine in gender,” wrote William Cronon in a classic essay. “Here, in the wilderness, a man could be a

real man, the rugged individual he was meant to be before civilization sapped his energy and threatened his masculinity" (1995: 78).

The fact, then, of the Arctic's lure drew from two overlapping sources. The first: its antipodal relationship to industrial societies to the South—its distance. The second: its purity and *terra incognita* qualities—being somehow anathema to humanity. It was not just different, but unknown and possibly unknowable. It was sublime. These two qualities set the Arctic far apart from, for example, Australia (distant, but knowable) or the depths of the North Atlantic Ocean (unfathomable, but nearby). The notion of femininity that emerged alongside these two qualities did not indicate a fragility so much as a holistic otherness. Like the Greek goddesses that lived at the sutures of the human world and the divine, the Arctic was a quasi-cosmic space. The Arctic had to be feminine for the same reason that Helen of Troy or Circe had to be feminine: the landscape was never an enemy meant to be vanquished, like on a battlefield, but a challenge to rise to, a demonstration of its conqueror's power, "waiting to be won."

It comes as no coincidence, then, that the men most bound up in these anxieties tended to be the most urban and affluent of their society. The fervent Arctic expedition leaders of their time, and their rapt supporters back home who vicariously travelled with them, drew disproportionately from the economic and political elite. At the time, Cronon explains, "frontier nostalgia became an important vehicle for expressing a peculiarly bourgeois form of antimodernism. The very men who most benefited from urban-industrial capitalism were among those who believed they must escape its debilitating effects." (1995: 78) Arctic explorers undertook ludicrous journeys with wanton disregard for their families' and their own wellbeing. When we see similar behaviour today—Alex Honnold's free solo ascent of El Capitan comes to mind—we readily identify the pathologies that drive such action, reaching for words like "crazy." But what haunted these men was not just their abstract aim to reach these distant landscapes, but to come home to a sense of themselves that was lionised and legitimised in the metrics of their day. "As we gaze into the mirror [wilderness] holds up for us," observes Cronon, "we too easily imagine that what we behold is Nature when in fact we see the reflection of our own unexamined longings and desires" (1995: 69–70).

The Arctic, by virtue of its distance, has always been a blank canvas, able to receive these projections of ourselves without contradiction or controversy. But the classical Arctic of the 19th and 20th centuries now exists only in nostalgia. Instead, the Arctic aesthetic has shifted with the discourse of the post-Holocene, shapeshifting into the harbinger of a new dialectic of human-nature relations, even as its mythic past casts a long shadow into the present.

A Shifting Landscape

In the past two decades (roughly), the popular imaginary of the Arctic changed dramatically. With climate change, the social meaning of the Arctic transformed from a representation of eternal alterity to a representation of intimate precarity. This accompanied, and even facilitated, a shift in the way post-industrial societies related to the natural world. The core of this transformation is neatly captured by the socio-cultural notion of the Anthropocene, a time-bound recognition of the interconnectedness of human and nonhuman existence. Whereas late Holocene modernity was founded, in some respects, upon the rupture of the nature-culture divide—with civilised man emerging, godlike, from the savage wilderness—the Anthropocene recognises a bilateral capacity for influence between the nonhuman world and the human world (Chakrabarty, 2009). "The emergence of the geological concept of the Anthropocene," writes Elizabeth Povinelli, "point[s] to the perforating boundary between the autonomy of Life and its opposition to and difference from Nonlife." (2016: 14)

In the Arctic, polar bears served as global icons of this transformation. In the first decades of the millennium, images of these animals, looking precarious atop small ice floes, captured the full narrative of the climate emergency more so than any other image or soundbite. But the image was transitional. It trafficked in the old notion of the Arctic as a landscape of foreignness, as if to say, "Look how far the stain of mankind has reached." This was during a time in global climate politics which today feels quaint. Climate change, at the time, was animated by the same politics of environmentalism that had inspired decades of activism on behalf of forests and rivers. It was a model of environmental stewardship that grew up, and out of, the 1960s and 70s, when environmentalism found a firm foothold even in the neoliberal politics of the Nixon Administration (Brinkley, 2022). In this politics, industrial humanity posed a severe threat to vulnerable environments—and the primary victims were nonhumans. Although many things were at stake, their sum amounted to something less than the entire world. The Arctic, in this telling, was faced with the prospect of massive changes and extinctions.

But this narrative proved to be only a stepping stone. Today, the iconography of the polar bear has largely vanished. It has been replaced, instead, with images of humans, and young people in particular, and wildfire-devastated suburbs and storm-battered coastal homes. The climate movement, which formerly traded in sympathy for the ecological other, now turned its attention inwards to become a humanist cause, trafficking in images of ruination (Bennett,

2021). In the process, the high-resolution imagery of particular species (or even nonspecies, like glaciers) has receded, and has been replaced with a cloudy morass of apocalyptic forecasting. The term "existential threat" emerged as the flagbearer of this movement.

This new narrative is a self-consciously apocalyptic jeremiad about the bleak future for humanity, and more grandly, the planet (Thornton and Thornton, 2015). In the Arctic, this remained unimaginable—that is, it retained the same sublime as in previous centuries. But this was the opposite of the virginal landscape; instead, it was imagined as the excess of humanity, which was projected to devour not mere species, but entire landscapes.

In this framing, the Arctic retained its exceptional status. Mia Bennett, in a text on Arctic "ruination," at once describes these aesthetics and traffics in them, echoing Parry's descriptions of a place that is not quite of this world. "The Earth existed before us and it will continue to exist after us. Although the Arctic, at least in its glaciated iteration, predated humanity, it might not survive after or even during the species' [*Homo sapiens*] existence." (2021: 923) For Bennett, the Arctic still seems to exist as a tenuous space that is not-quite-of-this-earth, as though it could slip away if we don't pay careful attention. What is new in this interpretation, however, is the notion of the landscape as brittle. It is less and less a space that welcomes the hypermasculine explorer, "waiting to be won." Indeed, many of the people who now travel to the Arctic under the unironic banner of expedition narrate their journeys less as warriors than as healers or witnesses, like doctors paying a house call to an elderly patient or a priest going to administer last rites.

This almost often takes the form of scientists going North to study and bear witness to the violence of the climate change. In the elegiac film, *Chasing Ice*, which won the Grand Jury Prize at the Sundance Film Festival, a crew of scientists are shown documenting calving glaciers in the Arctic. At one point, a videographer turns to the camera and holds up a digital memory card, saying, "This is the memory of the landscape. That landscape is gone. It may never be seen again in the history of civilisation and it's stored right here" (Chasing Ice, 2012). In a similar vein, Sheila Watt-Cloutier writes, "If we cannot save the frozen Arctic, how can we hope to save the rest of the world?" (Watt-Cloutier, 2015: xxvi). The ethic of conquest has been turned inside-out to become an ethic of care, from "Waiting to be won" to "Waiting to be saved." The explicit correlative is that the entire planet is at stake.

Arctic Geontology in a Warming World

It is too simple to declare that climate change has demystified or disenchanted the Arctic. Its newly recognised fragility does not eliminate its alterity. But the narrative of climate change breathes some liveliness into the landscape—indeed, the capacity for the Arctic to be affected, as a body, is now taken for granted. This change reveals a geontopolitical shift, by which I mean a change in the political divide that separates Life from Nonlife. Geontology, first described by Elizabeth Povinelli (and borrowing from Foucault's concept of biopower; Foucault, 1978) concerns the ontological and political distinctions that legitimate and instantiate the divide between humans and nonhumans. Geontology is the divide; geontopower is the force that maintains and acts in the wake of that divide. "The simplest way of sketching the difference between geontopower and biopower," writes Povinelli, "is that the former does not operate through the governance of life and the tactics of death but is rather a set of discourse, affects, and tactics used in late liberalism to maintain or shape the coming relationship of the distinction between Life and Nonlife." (2016: 4)

The very notion of the Anthropocene has already triggered the "crumbling of the self-evident distinction of Life and Nonlife" (Povinelli, 2016: 14). Nowhere is this truer than in the Arctic, which is already preemptively elegised with the language of undeniable vitalism. Scientists and reporters frequently refer to climate change in the High North as an "Arctic death spiral" (Dickie, 2020) or write of "ice on the edge of survival" (AP News, 2021). But there is a black irony surrounding this transformation: we have breathed discursive life into this landscape only to watch it die. We may take no pleasure in this spectacle of mass death, but the voyeurism of it is undeniable, recalling Susan Sontag's warnings about bearing witness to violence. "So far as we feel sympathy," wrote Sontag, "we feel we are not accomplices to what caused the suffering. Our sympathy proclaims our innocence as well as our impotence" (2019: 102).

Conclusion: Through a Glass, Darkly

These experiences, printed and bound and photographed and televised, shape the foreigner's understanding of the Arctic. Even those who never physically experience the landscape are still in an affective relationship with it, mediated chiefly by representations. In a

sense, any person who has ever encountered a representation of the Arctic has travelled there. The affective experience reproduces itself even (or especially) at a distance.

Just as the Arctic served a role in the covert nineteenth-century discourse around the demasculinization of European and American men, it is now taking up an even more important role. Which brings us to ask, following Cronon, *If we take the Arctic to be a mirror, what does it reflect today?*

I revisit this question in the second half of his dissertation, but for now, I wish to foreground my argument. Narratives of Arctic ruination are, I will argue, the apex of a growing disillusion with the state of human domination of the planet. These stories are clearly linked to the growing sense in the 1950s and 60s that industry and technology brought promise as well as peril. This anxiety began, of course, with the atomic bomb, but soon spawned an entire culture that viewed technology with scepticism. Indeed, the entire genre of science fiction became an outlet and a forum for these anxieties. "It is in the imagery of destruction that the core of a good science fiction film lies." (Sontag, 1961b: 213) Sci-fi emerged contemporaneously with the threat of nuclear annihilation, and sci-fi films regularly hint that humanity's penchant for invention could precipitate its demise. The origins and textures of this anxiety are discussed in greater detail in a later chapter, but they revealed at their time a surging scepticism toward the form and substance of post-industrial humanity. The Arctic, in relation to that scepticism, was a last bastion of purity and innocence (alongside, perhaps, the Amazon rainforest). This was a space where the taint of humanity had not yet left its indelible stain. And for that reason, it still offered a mirror for shared desires and projected anxieties.

3. Methodology: Or, Ethnography *contra* Bureaucracy

Introduction

This chapter presents a nuts-and-bolts introduction to my methodology. It also discusses my approach and experience in reference to scholarship on decolonial research methods and the various challenges and opportunities of conducting fieldwork in Western Alaska. Here, I introduce my epistemological framework, including my choices of how to analyse participant data, and in particular my decision to eschew structured approaches, such as grounded theory method. In a final section on research ethics, I note parallels between the bureaucratic governance of scholarship and the bureaucratic administration of climate adaptation aid in Western Alaska. This chapter complements Chapter 4, which describes my approach to *environmental ethnography*, which I defined over the course of my fieldwork.

I have chosen, at times, to employ a narrative approach in describing my methodology. This choice is to avoid misrepresenting my approach by masking my choices in the language of scientific conduct. To be clear, my methodological approach was not carefully choreographed in advance of my fieldwork, but rather emerged in tandem with my time in the field, and in coordination and collaboration with my two participant communities, following "an ethos of practical experimentation" (Hitchings and Latham, 2020: 977)—a concept I will return to over the course of this chapter. This approach, informed by a commitment to humility (Saville, 2021), created an epistemological openness that was particularly well-suited to the troubled colonial landscape of Western Alaska and my positionality as a settler-descended scholar and a new arrival to the region.

Epistemological Framework

From the outset of my research, I had sketched the contours of, roughly, three key themes I wished to examine from the field. First, I wanted to witness how climate change operates on a colonial frontier, and how it constellates with governance, infrastructure, and

Indigenous sovereignty. Second, I wished to reflect upon how the Arctic is enlisted in global conversations about planetary futures. I wanted to know what literal and discursive roles the region plays in the imagination of climate apocalypse further south, and to what collective psychic end it is constructed as proof of the "existential threat" facing an imagined collective humanity. Finally, I wanted to ask what, if any, is the seductive pull of narratives of climate apocalypse? How and where can these narrative forces be located elsewhere in modern history? What does climate dread look like when studied as an intimate, shared social expression of discomfort, rather than an assumed rational response to a forecast cataclysmic future? In particular, I wondered if I would encounter narratives of climate apocalypse and extinction in rural Native Alaska—I suspected that I wouldn't.

Several of these themes suggested an approach rooted in induction—that is, inferring a general law from specific observations. But the traditional methods of rigorous inductive research are sometimes at-odds with community-based approaches to scholarship, where the research agenda, its process, and its aims are co-created by several parties—only one of which might have a strong commitment to creating generalisable knowledge (the PhD student, in this case). Put differently, my research communities in Western Alaska were not necessarily interested in conducting science in the academic sense of creating *generalisable knowledge*; rather, they wanted to uncover issues (and raise awareness) regarding how federal policy and climate change were impacting Indigenous futures in Western Alaska. They also were fundamentally sceptical—rightly so—that purely academic outputs (e.g., peer-reviewed journal articles) would meaningfully advance their communities' urgent social and environmental agendas. Honouring their needs and achieving reciprocity required ensuring that my own epistemological framework was geared toward accomplishing local goals, while trusting that generalisable knowledge would follow.

In many respects, I was in tacit conversation with other researchers who followed a more traditional analytical framework. For example, Carley-Jane Stanton's dissertation, while taking place in a messy field setting in rural, semi-Indigenous Canada, employed grounded theory method (GTM) to permit a focused and principled analysis of her participants' data (2022). Cathy Urquart writes simply that "the main purpose of GTM is *theory building*" (2013: 16, her emphasis). But my aims of beneficence and reciprocity are not secondary to a theoretical objective. Following decolonial research principles, my approach focused primarily on respecting and reinforcing Indigenous sovereignty in Western Alaska—the theory-building aspect is an essential, but ultimately secondary, objective.

"Methodology influences research outcomes," warns Margaret Kovach (2021: 11–12). "Research outcomes create policy. Policy generates programs." I understood the importance of paying careful attention to my methodological approach, even as I knew I couldn't be overly prescriptive in my methodological framework because I did not yet know what exactly my research would be; after all, that agenda could only be co-created with my local research participants. I was committed to building the ship at sea.

I was starting with a wealth of background reading, a handful of connections, and little more. Fortunately, I realised early in my research process that there was only so much that I could *plan*. The rest would have to unfold at its own pace. Being unable to express it better myself, I quote Tim Ingold at length, who claims that the task of "the novice anthropologist"—and this novice geographer—is to *attend*, in the double sense of both taking note and waiting:

> to attend to what others are doing or saying and to what is going on around and about; to follow along where others go and to do their bidding, whatever this might entail and wherever it might take you. This can be unnerving, and entail considerable existential risk. (2014: 389)

A similar sentiment was shared with me by a Cambridge professor, who advised me to "be a student" in the field. In that sense, she meant, it's ok to arrive without having answers already at hand. In fact, she seemed to suggest, that was preferable.

In this way, my epistemological approach came to have two dispositions. The first was political-economic and highly analytical. It was concerned directly and immediately with urgent issues facing my collaborators' communities, and yielded insights on policy gaps and governance failures. I employed policy analysis and discourse analysis, empirically supported by unstructured interviews and participant observation, to generate data about how federal policies were shaping Tribal governance in Norton Sound. A second strand of my research was theoretical: in search of generalisable knowledge and connections with distant geographies and insights in other disciplines. For this second strand, I used the same data set, combined with a practice of environmental ethnography that I describe in the following chapter. Both dispositions were front and centre in my research, but the former—focused on practical issues and solutions—set the agenda for my research engagements: where I went, with whom I spoke, and how I worked with my collaborators.

At its epistemological core, my research relied on induction: generalising from facts to a rule or a set of causes, "a leap from the visible to the invisible" (Bendassolli, 2013: 3). But I was at a loss to deploy many of the conventional tools in qualitative data analysis to further

parse my data and reduce complexity. This was partly due to my resistance to grouping my heterogenous participants into categories. It was also due to a hesitancy to deploy a modernist epistemological framework onto an almost entirely-Alaska Native research landscape. The possibility of coding each interview in NVivo, and using technology to generate insights, felt, in this situation, uncomfortably congruent with the history of machines becoming "means of intellectual production" (Shapin and Schaffer, 1985: 26).

Moreover, because of the wide diversity of interview subjects—mayors, Tribal council members, staff, teachers, community members, etc.—I made no effort to analyse qualitative data in a way that might permit a quasi-quantitative analysis (e.g., through Grounded Theory Method, Urquhart, 2013). Such analyses generally require that participants be in some way comparable to one another, and making such comparisons empirically rigorous requires a reasonable sample, which was not obtainable due to the simple fact that in a study focused on two small communities, it was not reasonable to group participants beyond their residency—which was hardly a persuasive criterion given the questions at hand. Here, there were no easy categories that felt relevant; nor did I want to reduce the humanity of my research subjects by placing them into buckets. Instead, interviews (recorded by audio or notebook, all conducted in English), were carefully reviewed looking for themes and key discourses. ("Pay attention to the negative spaces," one anthropologist advised. He had worked in a Yup'ik community to the south.) These findings were further tested against conversations with experts, colonial government officials, regional and national Tribal leaders, and academic colleagues who had also conducted research in Western Alaska.

Eschewing scientistic approaches, I leaned into feminist and postcolonial discourses around the production of knowledge. I took particular inspiration from Donna Haraway, who emphasises the importance of embodied learning and defends "partiality" and complexity:

> I am arguing for politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims. These are claims on people's lives. I am arguing for the view from a body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity. (1988: 589)

Within this framework, I could be a scholar and an ally, without feeling a need to give deference to technologies of knowledge production or frameworks aiming at producing a particular version of objectivity. This approach granted me the space for epistemological

manoeuvring that allowed me to maintain an empirical commitment alongside a decolonial approach.

On Covid-19 and "not visiting" rural Alaska

Like so many other geographers, my fieldwork was interrupted by Covid-19. Entry to rural Alaskan communities—Native and settler—was tightly controlled in the early days of the pandemic (Johnson et al., 2021). Moreover, a major passenger airline that served much of Western Alaska went bankrupt in April 2020, further isolating many bush—*i.e.*, inaccessible by road—communities. Roughly twenty villages abruptly lost their only regular passenger service (Loh, 2020). My original plans to travel to rural Alaska in June 2020 were pushed back to September 2020, then January 2021, and then postponed indefinitely. I requested, and was granted, an intermission from my studies.

The University and relevant departments had encouraged students to modify their research to be completed remotely or in the low-risk company of archives. Such modifications would have been possible. For example, I could have done my fieldwork only in urban Alaska, which is whiter and more politically conservative, had leaned into a cavalier attitude to Covid-19 by the summer of 2020. I thought often of my Cambridge colleagues and friends, some of whom were historians of Antarctica. They knew as well anyone the trials and virtues of "not visiting" (Guasco, 2022; Howkins, 2010) a field site. Surely my hypotheses could be refined and developed from afar—or even from "nearby," in the case of Anchorage or Juneau. But my research was animated by a belief that stories about climate change were being told with a limited faithfulness to the actual land and to the people facing climate displacement most directly.

As mentioned elsewhere in this dissertation, the social fact of the High North is dramatically different from the place itself — it has been for centuries (Bravo, 2015, 2019). By "not going," I worried that I would be reproducing the same patterns of writing about the High North as a visitor or spectator, projecting my own desires onto this landscape (Cronon, 1995; Lopez, 1986). Even from afar, it was clear to me that one source of ongoing colonial tribulations in the High North was precisely this distance — the geography of power that allowed settler scholars to project their visions all-too casually across vast stretches of land. With this in mind, I made the decision to intermit my studies at Cambridge until I could travel to Alaska safely and humbly (*cf.* Ingold, 2014; Saville, 2021).

I was among the lucky students who decided to—and were able to—bend my timeline around the crisis. In a sense, Covid was a gift, in that it forced me into a more spacious and reflexive consideration of my research plan, which ultimately yielded a methodology that, I am told, is growing increasingly rare for PhD students. Part of my good fortune owed to being relatively assured of having a fourth year of funding, a luxury not afforded to many of my peers at Cambridge. Taken together, this flexibility allowed me to make some unconventional choices, such as writing up from the field, and conducting fieldwork well into my third (and even fourth) year. But in a dissertation that has come to emphasise the essential importance of situated knowledges and learning from landscapes in embodied and contingent ways (Haraway, 1988), I am ultimately convinced that this research could hardly have taken place without the intimate socioecological encounters provided by fieldwork.

Approaching Multi-sited Ethnography

I had been warned before travelling to Alaska that fieldwork with Indigenous communities in the North American High North (indeed, much of the Arctic) is rife with research fatigue (Chambers et al., 2021; Kater, 2022; West, 2020). Despite the warnings, it took some time to acclimatise to the constant legacy of injurious and extractive scholarship that cast a long shadow across the region. This legacy became a central force shaping how my research unfolded. Ultimately, I chose to improvise a methodology that 1) modified the classical ethnographic form of living with participants and engaging in daily living activities over a period of months or years (Megoran, 2006), and 2) focused on *living* as close as possible to my field sites, rather than *visiting* from thousands of miles away. In this way, my research was in constant tension between wanting to respect the legacy of research fatigue while meeting the demands of an epistemological and empirical approach that was heavily informed by participant observation, which requires presence, patience, and time. I found a middle ground: living more or less continuously in Nome, the regional capital, and making regular, week-long visits to my two village field sites over the course of several months.

This decision—or improvisation—emerged from several constraints: the lack of resources afforded to a single PhD student; my unfamiliarity with the research landscape and relative paucity of connections in Alaska; and a strong desire to avoid replicating more traditional ethnography. But this pathway also gave me several advantages, and mitigated many of the individual limitations mentioned above. For one, being positioned in Nome put me at a

locus of regional activity that gave me a much broader sense of perspective than I might have had otherwise. I came to appreciate—in conversations with local doctors who normally only saw patients in one village, and through discussions with anthropologists who also only had one field site—that I had gained a regional point of view that helped me discern what was particular to one community and what was more common across Norton Sound. (I also came to think of parts of Norton Sound in informal "sub-regions," some of which overlapped with the linguistic and cultural boundaries, and some of which did not.) Moreover, being in Nome gave me access to facilitators (and gatekeepers) who I might not otherwise have encountered; and traveling to so many villages in the region helped me gauge which communities might be amenable to partnering with me.

My choice to avoid a traditional anthropological endeavour was also informed by several epistemological factors. First, I always understood that this project required a multi-sited approach. Alaska Native communities are too heterogenous to generalise findings among them, and I reasoned that dedicating myself to one field site would likely entail limiting my awareness of other communities in the region and leave me vulnerable to inappropriate generalisations. Second, this research is concerned with the projection of power across space. Villages are one terminus of that projection of power; Washington, D.C., is often the other. By situating myself in Nome, I felt best suited to observe the spaces in-between, which receive relatively less attention from scholars of Indigenous environmental adaptation. Finally, I felt that by not attempting to immerse myself in an Alaska Native community, I would leave a lighter footprint and avoid contributing to the research fatigue that is already rampant across the state.

Navigating Consent, Ethics, and Reciprocity

I encountered a difficult ethical and regulatory landscape while preparing for and undertaking my fieldwork. The social and institutional research context in Alaska is increasingly attuned to broader conversations in academia on the need to decolonise research and adhere to higher standards of contemporary research ethics. These conversations respond to generations of harm caused by past and present researchers across the High North (Yua et al., 2022). "A history of research ethics violations has led to great distrust of research among AN [Alaska Native] people" (Skewes and Lewis, 2016: 2). Meanwhile, decolonial research methods have been articulated in increasingly clear and legible ways — Māori scholar Linda Tuhiwai Smith's book on the topic (1999) has been cited nearly 30,000 times — drawing public

and scholarly attention to contemporary research practices rooted in reciprocity and dedicated to community benefit.

Amid these conservations, the landscape of regulations governing certain forms of research in Alaska evolved into sufficient complexity that one scholar termed it, "the Bureaucratic Iditarod" (Balestrery, 2010). While researching (for practical, not scholarly, purposes) these research ethics protocols, I found striking and unsettling parallels to the bureaucracies that stymie Alaska Native villages' efforts to secure climate adaptation funding. Here, institutions designed for the benefit of Indigenous communities had partially adopted the convoluted forms of the colonial government, wherein overlapping bureaucratic processes have the ultimate effect of shutting down engagement. This next section explores these dynamics, their origins, and how I chose to navigate them as a junior researcher. I conclude with a reflection on their broader connections to the bureaucratisation of Alaska Native governance and the corresponding impacts upon *de facto*—as opposed to *de jure*—Indigenous sovereignty.

The Origins of Distrust in Native America

In Alaska, and in Native America more broadly, two stories cast a long shadow over present-day research with Indigenous communities. The first is the infamous case of researchers at Arizona State University collecting blood samples from Havasupai participants in Arizona in 1989, under the auspices of researching diabetes in the small community. Community members were later shocked and angered to learn that their blood samples had been retained for further research—including published papers—on "inbreeding, alcoholism, and the origin and migration of the tribe from Asia" (Sterling, 2011: 115).

The second story concerns a majority-Native community in Alaska and a team of medical researchers studying alcoholism in in the late 1970s. The researchers prepared a press release highlighting their findings, which had not been pre-approved by representatives of the Native community where the research took place. The press release eventually led to a story on the front page of *The New York Times*, bearing the headline, "Alcohol Plagues Eskimos" (Dillard et al., 2018: 4). The article (and companion pieces in other major news outlets) described this particular community's distress in near-apocalyptic terms, which I will not reprint here.

An uproar followed in the wake of the press release (Skewes and Lewis, 2016). Several scholars sought to delegitimise the study's findings by critiquing methodological flaws— e.g.,

by noting that the "measures had not been validated in AN [Alaska Native] people" (Dillard et al., 2018: 4). Another source of violation and hurt seems attributable not to these improperly validated measures, but to the feelings of shame and betrayal at non-Alaska Native researchers' publicising the ongoing struggles of a majority-Alaska Native community without that community's informed consent (Foulks, 1989).

It seems that this study, more so than any other, had a profound chilling effect upon Alaska Native human subjects research, particularly as it relates to biomedical and other sensitive topics (Balestrery, 2010; Dillard et al., 2018). The controversy also catalysed the development and implementation of a number of guardrails to protect Alaska Native communities from potentially harmful research (Kraus, 1989). This included the establishment of concentric layers of institutional review boards (IRBs), including a state-wide Alaska Area IRB (AAIRB) and regional IRB-type ethics committees administered by corresponding regional tribal health systems (and often exercising concurrent jurisdiction with IRBs at Alaska-based universities). This leads many aspiring human subjects researchers to navigate three layers of IRB approval: Alaska Area IRB, regional tribal IRB, and university IRB—in addition to seeking local Tribal and community approval. Subsequent codes of research ethics have been published by a wide range of governmental and quasi-governmental bodies to help inform these IRBs' decision-making process (Balestrery, 2010; Kraus, 1989). While the institutionalisation of research ethics originated in concerns regarding biomedical research, the forms and protocols established in the process exert significant influence upon other human- and non-human subjects research.

One effect of this increasing bureaucratisation of research ethics is the near-disappearance of the archetypal anthropology (or geography) PhD student who shows up with a tape recorder and leaves months later with reams of ethnographic data—perhaps never to be seen again. "One no longer can go quietly into native communities," Joseph Trimble writes of North American Indigenous communities.

> Community access is regulated, if not directed, by professional ethical standards and guidelines, government requirements for participant-informed consent, approval from an institutional review board or panel, and native community approval of the research prospectus. Without approval and review, access is almost impossible. (Trimble, 2008: 381)

Although in Alaska, these regulations rarely have sharp legal teeth, their basic principles are well-understood in rural communities, such that practices of consent and accountability are widely expected. An uninvited researcher is, generally speaking, an unwelcome researcher.

Running the "Bureaucratic Iditarod"

Interrupting the generational harm caused by past researchers is essential to allying scholarship with Alaska Native wellbeing and a broader decolonial agenda. But it also left me in a difficult situation: having to navigate a complicated research ethics bureaucracy with limited time, resources, and without an Alaska-established institutional ally who could shepherd me through these Alaska-based procedures. What's more, even researchers with strong local networks and deep experience in Alaska report difficulties and frustrations with these institutional barriers. Balestrery (2010: 143) refers to the Alaska research ethics landscape as exhibiting a "'people-policy-methods' confusion," due to three types of ambiguity, which I summarise as: 1) *who* are the relevant institutions/agencies? 2) *what* are the specific protocols for research approval? and 3) *how* does a researcher properly sequence, negotiate, and coordinate the process of engagement for ethics approval? Mohatt et al. (2004) conducted a study that involved "three IRBs, six regional tribal boards, and numerous village councils" (268). In their experience, they received conflicting recommendations from various review bodies, which then required a process of mediation and consultation. These processes of reconciliation take many months or even years. (I am unaware of any dataset that might give insight into an average.) The website of one regional Native healthcare organisation lists a five-step process for receiving approval from their IRB and the Alaska Area IRB before conducting research, and notes that "each step in the review process can take 2-4 months"—for a possible 24 months from "concept proposal" to "research agreement" (Southcentral Foundation, 2024) The process does not include receiving approval from Tribal governments.

From a pragmatic perspective, I found myself in a quandary. I had completed an ethics review process at my home institution[3] — thousands of miles away from Alaska. It was an

[3] Several separate risk assessments were submitted and approved for my fieldwork—as I kept extending my anticipated return date. This was partly due to uncertainty about the duration of my fieldwork from the outset; it was also due to the bureaucratic ease of asking administrators to sign off on blocks of fieldwork that, collectively, amounted to a period of time away from Cambridge that would have been more likely to generate institutional friction has I asked for it as a lump-sum, so to speak.

The research ethics assessment was approved by the relevant parties at Cambridge on 7 February 2022 (submission no. 2137).

important procedural step, but having Cambridge's blessing did not give me a feeling of licensure as I embarked upon fieldwork. "Too often," write Hammett and colleagues, "research ethics is reduced to a bureaucratic hurdle, a singular moment of approval that overlooks the dynamic, messy, and complex realities of the research journey" (2022: 582). I understood that I could do real harm to local communities, and receiving formal ethical approval from Cambridge did not in any way guarantee the beneficence of my research. As I arrived in Alaska, I came to understand that beyond receiving Cambridge's approval, the formalisation of my research ethics would necessarily be a discursive and exploratory process, forming a cornerstone of my field research in its own right.

I would eventually come to believe that "ethical research" is something of a homonym. On the one hand, ethical research denotes compliance with institutions tasked with protecting research participants and policing researchers—a sort of legal framework. But there is another definition that is both more concrete and harder to define, namely, "that research is not fully ethical if it violates the fundamental values of a cultural group. This implies that most research is *more or less ethical* rather than ethical or not ethical" (Mohatt and Thomas 2006, 93–94, emphasis in original). The two definitions are hardly mutually inclusive. Consider, for instance, that the infamous study on alcoholism, mentioned above, had support and approval from several formal community groups and local institutions, none of which prevented the project from causing extraordinary harm by violating cultural norms (Foulks, 1989). It was ethical in a regulatory and bureaucratic sense, but unethical in a more practical sense. In short, having the approval of various institutions does not preclude a researcher from causing harm.

Jean Balestrery describes running the gauntlet of Alaska-based research ethics as "the bureaucratic Iditarod"—a comparison with the annual 1,000-mile sled dog race from Anchorage to Nome. "The decision to embark on the bureaucratic Iditarod," she writes, is best suited to "nationally structured, designed, and funded research studies (i.e. NIH, NIMH [National Institutes of Health, National Institute of Mental Health])" rather than "the individual doctoral student seeking to conduct dissertation research" (2010: 149). This is certainly true for biomedical research, which trigger appropriately high levels of scrutiny from IRBs. This left me in a conundrum. I was limited in time and resources, and in all likelihood would have struggled to secure several overlapping Alaska-based IRB approvals and complete my PhD in the required time. The question I first needed to answer was: *do these institutional review processes apply to my environmentally- and politically-attuned geography research?*

An informal survey of more established social science and humanities researchers in Alaska found that few went through the same process as biomedical researchers — many simply went through their universities' IRB process, followed by an *ad hoc* Tribal review in the specific communities where they worked, usually administered by the Tribal Council (i.e., at the local, not regional, level). While this seemed like common practice, I did not hear a clear case for *why* these scholars believed it to be an appropriate course of action, suggesting that the choice to avoid additional reviews may have been made out of expediency and in the knowledge that negative consequences were unlikely to befall the researchers in question—what Balestrery calls "gatekeeping the gatekeepers" (2010: 146).

Helpfully, I spent my first week in Alaska attending a conference on "Alaska Native Research Ethics," during which I wrestled with categorising my own research ethics requirements. *Was my work IRB-exempt or not?* It was during this conference that I learned that IRB qualification comes derives directly from US federal law. 45 Code of Federal Regulations Part 46 governs IRB approval and creates a three-part classification scheme for human subjects research: 1) "no greater than minimal risk" *and* IRB exempt; 2) "no greater than minimal risk" *and* IRB non-exempt; and 3) "greater than minimal risk" and therefore requiring "full review." The code itself, which is widely reproduced on university websites in the U.S., explains in relative clarity how to sort human subjects research among these three categories.

It was always obvious to me that my research required relevant approvals from Tribal governments—for ethical reasons, if not legal ones. But if my research did not meet the criteria for IRB exemption under U.S. law, I would also be obliged to go through the Alaska Area IRB and a subsequent regional review process. Given the normal amount of time it takes even senior scholars to navigate these permissions (years, in some cases), and the impact Covid-19 had already taken on my PhD timeline, undertaking an Alaska-Area IRB and a regional review would likely have required a serious pivot in my methodological approach.

Ultimately, I judged that my research posed "no greater than minimal risk," and was therefore IRB exempt. I made this judgment based on a careful reading of federal law, specifically based on the judgment that any unintentional disclosure of participant data —say, a breach in my cloud-based data storage — "would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation" (45 CFR 46). Because the object of my ethnographic inquiry was specifically power relations between tribal governments and federal agencies, I

felt comfortable presuming that any potentially-damaging personal data was unlikely to appear in my records.

A Junior Researcher Charts his Course, Tentatively

Although my research met the threshold for IRB exemption, I went through careful processes to secure the blessings of tribal leadership before conducting fieldwork in my two field sites. This became, in some ways, a *de facto* IRB process that required consulting with, and receiving the blessing from, the leaders of Tribal governments. My experience is that Tribal governments in Norton Sound do not have standardised protocols for reviewing requests from researchers. Instead, they are considered on an *ad hoc* basis. (Biomedical research proposals are managed by the regional review board, hosted at the local hospital in Nome.) In my meetings with Tribal Councils to discuss my research, I presented myself, explained my goals, and answered their questions—which were often difficult and probing. In my subjective experience, there were two moments at which one sceptical council became more open to my request. The first was my mention of trying to "raise awareness" of the struggles that Tribes in the region face when coordinating with the federal government. The second was my assertion that, if I committed a gross violation of ethical norms while in their community, they could contact the University of Cambridge and potentially jeopardise my PhD. Put simply, I wanted them to know that accountability structures existed that bound me to ethical and considerate conduct.

I also carefully prepared one-page handouts and two-page participant information sheets. I was nervous about handing these out, worried that they might make participants feel as though they had just signed up for something. My intuition was incorrect. People I came across studied my information sheets eagerly, and enjoyed reading them. I realised it gave a feeling of authenticity to my presence—helping establish that I am who I said I was. I would find my flyers tacked up on bulletin boards, months after distributing them. Not once did I see a participant bristle with discomfort, as I had feared.

Although one council provisionally approved my visit over the phone, I made a point to meet with them in person at a later council session, in person. I sat in the council chambers, forming part of a circle of six chairs around the perimeter of a room, and introduced myself

once again. The council deliberated, first in English, then in their Native language. [4] At one point, an elder made a joke, which I partly understood when he used the English word "spy," pointed at me, and chuckled.

For my second field site, the council was not interested in hearing from me directly. Instead, they received a one-page leaflet I made and circulated, and sent word through my primary contact at the Tribal government that I was welcome. I have no doubt that it helped a great deal that my primary contact at the tribal government and I had spent an hour speaking together in person, and had begun to build a good rapport in that short time.

In addition to navigating these *ad hoc* protocols for securing Tribal consent, I undertook to make myself known to regional leaders who were active in the research and governance landscape. This included two leaders at Kawerak, the regional Native nonprofit; an anthropologist who has been working in Norton Sound for over 15 years; and a professor of Tribal governance at the University of Alaska, Fairbanks. I was not asking for consent, *per se*, in these conversations, but rather wanted to make myself known and familiar, and to establish my ethos and the aims of my research. Most of these leaders would go on to provide me some degree of mentorship, including by connecting me to Tribal leaders, providing friendly peer-review of publications, inviting me to join various collaborations, and offering general guidance. Moreover, being connected to these leaders proved useful when coordinating with Tribal officials. When I was asked if I was working with Kawerak, for instance, I could say, "No, but I've spoken with *X* and *Y* about this project." Doing so established me as less of a "safari scholar" (Trimble, 2008: 380) by connecting me to regional institutions and respected experts.

These choices as to how I navigated consent and ethics were developed over time. Although the formal research landscape is highly bureaucratised, in other ways the utterly human processes that establish trust, reciprocity, and accountability are largely unscripted. I learned, over a period of many months, how to articulate my research aims concisely and plainly in a way that often elicited a response from Alaska Native leaders along the lines of, "that sounds useful." Of course, as I was doing this, my research aims were also shifting with feedback from community leaders. This dialogic process helped me refine my research questions and ensure they dovetailed with local needs.

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[4] I have withheld the particular language above to preserve a higher degree of anonymity for the community in question.

Throughout this process, I came to appreciate that consent in research relationships is a continual process, requiring a creative attention to detail and a persistent reflexivity. I regularly searched for new ways to practice this sort of research ethic, such as by double-checking quotes with research participants—even when the quotes were anonymised.

Charting this course required continual self-interrogation due to two intertwined constraints: one institutional, and one ethical (following Mohatt and Thomas 2006). On the institutional side, I had to adhere carefully to my own commitment to collect data that would not cause potential harm if it were unintentionally released. I was also privileged to have a supportive supervisor, a supportive research institute, and a funder that was not interested in providing any sort of supervisory input. At another university, or with another funder, it's quite possible that I would not have been given the leeway to select my own field sites, and instead would have been expected to follow in the footsteps of a more established researcher. The broad discretion I was given to design my own research protocol came with concomitant responsibility to ensure that the institutional guardrails were appropriately established and maintained throughout. And of course, this was complicated by the fact that I was trusting myself to choose which guardrails to follow closely (e.g., protecting my participants' anonymity) and which to sidestep (e.g., the Alaska Area IRB).

On the ethical side, I had to ensure that I made good upon my commitments to carry out research in a reciprocal and beneficent manner. Was I checking with communities before publishing about them, even in anonymised fashion? Was my research *useful* to advancing my participants' goals? Asking these questions, and holding myself to high standards for their answers, became a central part of my research process.

This also informed my choices around securing individual consent. I chose to only secure oral consent for my interviews (Gordon, 2000), for several reasons. First, English literacy is limited in some Alaska Native villages—particularly where English is spoken as a second language—raising obvious problems around written consent. Second, signing forms is associated with governmental functions, and I was at pains to assure participants that I was not, in any way, affiliated with any government agency. Third, I took every step feasible to let my participants know that I was accountable to them—from an ethical and an institutional perspective. The choreography of me *taking* a form with their signature was misaligned with the general thrust of my research aims. (After all, taking a consent form arguably does much more to protect me than it does to protect participants!)

In my experience, having a clear participant information sheet also helped enormously. This two-page, friendly document, was meant to dispel confusion, answer questions, and do the opposite of a written consent form: it was something my participants could take from me. It helped establish my independence. I wrote: "This research project is part of my student work—it is not my job. This project is supported through my scholarship and by my university; it is not paid for by any government, company, or non-profit that works in Alaska." I detailed confidentiality issues—all data was anonymised and appropriately safeguarded—the basics of voluntary participation, benefits and risks of participation, and how the interviews might be used.

Toward the end of the participation sheet, which was phrased in a question/answer style, question twelve asks: "What if I have a comment or a complaint? Can I talk to your boss?" The answer reads:

> Absolutely. I am bound by ethical standards set by the University of Cambridge, and if I violate those standards, I may be disciplined or even expelled. If anything happens that makes you feel uncomfortable, please tell me about it. If you'd like to talk to my academic supervisor, Professor Richard Powell, you can contact him at enquiries@spri.cam.ac.uk.

I found that this inclusion, which I also mentioned to Tribal Councils when seeking permission at the community level, took participants by surprise. They were not accustomed to feeling that they had leverage over the outsiders who came to visit and work with them. By highlighting this leverage, I was able to take a small step toward re-equilibrating a power differential in favour of my participants.

Although I was initially sheepish about handing out these information sheets, I soon found that they were happily received. Participants folded them up and tucked them away, or read them with interest right in front of me, occasionally pausing to ask a question or two. I felt good knowing that with each interaction, participants had taken some artefact *from me*, a small token to reciprocate the gift they had given to me. As a result, I believe I may have had richer and more trusting engagements than I might have otherwise.

"Big Science," little PhD student

In rural Alaska, there is a dialectical relationship between Alaska Native communities and would-be investigators wishing to conduct research with these communities. Imagine my surprise when I bumped into two researchers from a massive National Science Foundation

"Navigating the New Arctic" grant at one of my village field sites. They were similarly focused on issues of environmental change (although less focused on governance). I developed a warm and collaborative relationship with them—a thoughtful senior PI and a bright, affable master's student—during periods of overlap in our shared field site. I would invite them over for tea at my friends' home where I was staying. I would swing by their makeshift office at a semi-public building in town, where we would discuss our observations and hypotheses while various community members stopped by to say hello, offer ivory carvings for sale, or coordinate about their research logistics.

Their funding permitted a sort of engagement that I admired—and in a smaller way, dreaded. This research team (the two mentioned above were but a sliver of the larger team) was able to pay for long-term research assistance in the community. They were also able to pay participants for interviews. I went for a walk one afternoon with the graduate student, who mentioned that they were hiring folks to take them out on snowmachines (also called snowmobiles) to see the land. Curious, I asked what that cost. $300 per person, per day—a fair rate, to be sure, but roughly 4% of my entire research budget from Cambridge.

Alongside this research team, I felt a certain twinge of shame at showing up in my rag-tag fashion. Some of the same people I asked to sit for an interview *for free* had just done the same and been compensated for their time. I had made a point of not travelling empty-handed. I brought boxes of tea and chocolate from my hometown, 2,000 miles southwest of Norton Sound. But I traded in a currency of tokens of appreciation, not US dollars. My compensation would not help purchase fuel, ammunition, winter clothes, or groceries. I was on the opposite side of the spectrum of scientific resourcing.

The increased attention to research ethics that gathered momentum in the 1970s and 80s focused on minimising harm, such as through improved IRB processes and heightened standards surrounding informed consent. A more recent turn in research methods has focused on delivering benefits through research, by emphasising *process* over *outcomes*, and prioritising community participation and mutual accountability in research, particularly by rejecting the "safari approach" (Trimble and Mohatt, 2006: 331) that replicates colonial geographies of power and communication (Balestrery, 2010; Smith, 1999). Put simply, the aim is to ensure that research benefits communities, aligns with their agendas, and that these benefits are not contingent upon the research results, but are embedded in the practice—whether by employing locals, sharing capacity, or other means of providing benefit.

Scholars have also pointed to "engagement creep" (Brunger and Wall, 2016: 1871), which Kovach characterises as "the widening demand for community engagement in all aspects of [Indigenous] research" (2021: 125). Community members are increasingly asked to participate as event organisers, coauthors, facilitators, ethical reviewers, etc.—and often in a volunteer capacity. This is usually driven by a genuine desire by scholars to engage in decolonial research practices; at the same time, it also reflects changing standards in the contemporary research landscape, including expectations about collaborative methods.

At times, these expectations can become orthodoxy. In a 2023 presentation hosted by the Arctic Research Consortium of the United States, Iñupiaq scholar Cana Uluak Itchuaqiyaq (who grew up in Kotzebue, the regional capital just north of Nome) offered a candid appraisal: "Let's face it: in today's world, if you put something out there about Indigenous people without having Indigenous authorship on there, you're going to get some tough questions." She then mentioned Twitter as a space where academics are asked these tough questions, such as "'Who was the Indigenous person that was part of your authorship team?' Those are questions that people [*i.e.,* scholars] have to answer, and if there isn't somebody [*i.e.*, an Indigenous team member] then you need to answer why" (Itchuaqiyaq and Kramer, 2023). Although these conversations are often couched in holistic terms about collaboration and reciprocity, they often seem to have a lowest common denominator: funding. Brunger and Wall point specifically to the need for "sustained funding for communities to pay their own staff to provide support to researchers conducting community-based research" (2016).

But providing funding for communities to participate in research is hardly an easy or straightforward task. The NSF-funded researchers I met in Sinuk, with the goal of co-producing knowledge (Yua et al., 2022), had formally partnered with the local Tribal government. They decided to make the Tribal government a formal subcontractor on the NSF grant, in order to allow the Tribal office to directly hire local assistants. In this way, they reasoned, the Tribe would become a more equal collaborator on the research project. Or that was the hope. During one visit, the PI explained to me the arduous process of trying to register the Tribal government on SAM.gov, the web portal that allows entities to become approved federal subcontractors. The process had taken months, potentially siphoning off Tribal time and resources from other tasks. I came to understand that the study's village-based team members had not yet been fully paid for their work due to this administrative bottleneck, which evidently consumed an enormous amount of time. I was conducting participant observation one day in the Tribal office as this PI and a Tribal employee did their best to navigate various login screens and webforms.

The main internet connection was down. The satellite backup was broken, and the replacement had to arrive via mail. Staff were using the hotspots on their personal phones to try—with limited success—to keep the digital lights on.

The logistical hurdles to formally implementing this system were immense. While providing gift cards to interview participants is straightforward (if funding permits), going beyond that, to actually hiring collaborators, can involve a rapid scale-up in complexity. Tax laws must be followed, documents submitted, and records kept.

This sort of approach poses serious challenges for graduate researchers like me. My scholarship funding is not tied to a larger research project, and departmental funding was insufficient even to cover my basic travel and cost-of-living expenses while in the field.[5] Even if funding were not so limited, my capacity to coordinate the logistics of paid collaboration could be prohibitive in its own right. This situation creates the appearance of a catch-22. If I tried to champion community-based research, I would almost as a matter of necessity be creating unpaid engagements with community members. If, on the other hand, I tried to minimise the engagement burden of local communities, then my research risked violating norms and falling into colonial and/or extractive paradigms of knowledge production. This posed ethical challenges regarding my project's beneficence, epistemological challenges of gathering multiple perspectives beyond my own, and practical challenges given contemporary sensitivities in academia (*cf.* Itchuaqiyaq's comment about Twitter, above).

There is a narrow path out of this conundrum, although it is not particularly well-signed. In the Q&A following the presentation mentioned above, Itchuaqiyaq offered this advice to an inquiring grad student (not this one): "Don't assume that because there isn't a financial incentive for community members that they are not interested in the research, because there *are* community goals and interests and needs" (Itchuaqiyaq and Kramer, 2023). In many ways, using funding to employ or otherwise compensate community participants is the simplest way of ensuring reciprocity in community-based research. (This comes as no surprise, given that a central purpose of money is facilitating the fungible exchange of value.) But there are ways of creating relationships of reciprocity that, in the best of cases, are less transactional than cash in hand. But these relationships require a foundation of trust, in ways that participating in a paid

[5] In the course of my research, I used personal funds to cover the gap between what the University provided and what I understood to be essential to properly conducting my research in one of the most expensive places in the United States.

engagement might not. Although they might be harder to conduct successfully, they also offer a means of engagement that is potentially less transactional, precisely because of the non-fungible value exchanged between academic researchers and community-based participants. It was with this ethic that I tried to enter the field and build the relationships that would come to sustain my research.

A Practice of Patience: Selecting Field Sites

From the moment I began my PhD, I felt a clock ticking. How many papers would I publish by the time I completed my viva? Would I be competitive for faculty positions or post-docs? Taking a formal intermission from my studies gave me time to reflect and catch my breath. I gained additional perspective from reading about research methods centred on humility. I took particular inspiration from the "vital, gentle, slow and kind geographies" articulated by my colleague, Samantha Saville (2021). And although I do not identify as an anthropologist, I also took guidance from Tim Ingold, who offers that research

> calls upon the novice anthropologist to *attend*: to attend to what others are doing or saying and to what is going on around and about; to follow along where others go and to do their bidding, whatever this might entail and wherever it might take you… Commanded not by the given but by what is on the way to being given, one has to be prepared to wait. Indeed, waiting upon things is precisely what it means to attend to them.[6] (2014: 389)

This practice of waiting/attending informed my decision to travel to rural Alaska only when the brunt of the pandemic had subsided. But it also set the tone for a mode of research that moved slowly, "at the speed of trust," as the cliché goes.

When the magma of the post-Covid world began to cool, I moved to Anchorage, Alaska, in May of 2022, with clear intentions but no real plans, except to get my bearings. I understood Anchorage to be the *de facto* capital of Alaska; Juneau is more of an administrative hub. I understood that conducting my research effectively would require making connections, and Anchorage struck me as the best place to do that. Following Ingold, I felt like "pushing the boat out into an as yet unformed world—a world in which things are not ready made but always incipient, on the cusp of continual emergence. (2014: 389)

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[6] Ingold borrows the double meaning of wait/follow along, which share the homonym *attendre* in French, from Masschelein (2010).

The day after I arrived, I began attending the weeklong conference mentioned above. There, I became acquainted with one of the presenters, who had travelled to the conference from the remote community of Nome, a regional hub of 3,800 people in the Norton Sound region of Western Alaska. I had heard of Nome, and as I looked it up on a map, sitting in the small lecture theatre, I saw that the surrounding villages had familiar names. Kivalina, Shishmaref, Shaktoolik, Unalakleet — these were many of the villages that topped the government reports that listed, and ranked, the most climate-vulnerable communities in Alaska. Some, like Shishmaref and Kivalina, had been the subject of news stories in major outlets, or the field sites of established scholars (Marino, 2015).

This was the first in a series of contacts who opened doors for me to visit these places. And although I barely knew it at the time, my research would require more of these facilitators, each taking me farther into the concentric circles of trust that exist across Alaska. (These circles mirror the concentric circles of colonial space in rural Alaska. The big cities (Anchorage, Fairbanks, and Juneau) and majority-White communities (e.g., Talkeetna and Girdwood) are at the centre; surrounding them are majority-Native regional hubs (e.g., Bethel, Nome, and Kotzebue); at the periphery are the Alaska Native villages, which have very few non-Native residents.)

Although I didn't know fully understand it at the outset, it would have been nearly impossible for me to conduct my fieldwork without having these contacts extend invitations. In Native Alaska — and, indeed, in many post-colonial Indigenous contexts — researchers are met with something between cool avoidance and veiled disdain. Smith offers a luminous warning: "research," she writes, "is probably one of the dirtiest words in the Indigenous world's vocabulary. When mentioned in many Indigenous contexts, it stirs up the silence, it conjures up bad memories, it raises a smile that is knowing and distrustful" (2012: 12).[7] I learned quickly upon arriving in Alaska that introducing myself as a "researcher" was the easiest way to shut down conversations with strangers. I needed a way to build a bridge to a relationship of trust.

There is a peculiar challenge to visiting these places. It is logistically straightforward, even easy, to travel to an Alaska Native village of 250 people. From the mid-size city of

[7] I will add that my experiences with Indigenous research participants in Mongolia in 2017-18 were not characterized by this suspicion or mistrust. I suspect that owes a great deal to Mongolia's history: the nation was never successfully colonised for an extended period of time, and the rural, nomadic Mongolian herder is a symbol of national pride. The same cannot be said for most postcolonial Indigenous communities. If anything, my experiences in Mongolia lent me a naïve optimism about the future facility of my research. My supervisor was kind enough to adjust my expectations early on.

Anchorage, one flies to Nome on a Boeing 737. From there, it's a five-minute walk from the Alaska Airlines terminal to the Bering Air terminal, each of which is little more than a medium-sized room and some aviation infrastructure. For the Bering Air flight, there's no semblance of security; you can pay for your ticket at the counter and when the pilot calls out your destination, you follow him out a door onto the tarmac. The workhorse of the Bering Air fleet is the Cessna 208 Caravan, a single engine, fixed-gear airplane that seats ten passengers (Figure 4). I made a habit of trying to sit in the front row, where I could look over the pilot's shoulder and see the various gauges and digital read-outs. From there, most villages in Norton Sound are between thirty and sixty minutes away, not accounting for stops made along the way. This is true for both villages I worked with most closely, Sinuk and Pastolik. Because Norton Sound villages are relatively small (all have fewer than 850 residents), I have used pseudonyms for the names of these two villages in order to preserve a heightened degree of anonymity, and following the practice of other researchers in the region e.g., Skewes and Lewis (2016). (Sinuk and Pastolik are the names of now-abandoned Norton Sound settlements.)

Figure 4: Onboard a Bering Air Cessna 208.

But then what? An uninvited visitor stepping off the plane in any given village in the region would have no hotel in which to stay, no coffee shop in which to meet strangers, and no restaurant in which to eat. In most Alaska Native villages (in Norton Sound and beyond), there are only homes, a general store (or two), a school, a clinic, a church (or two), an airstrip, a power station, a water treatment plant, and a couple of buildings housing the post office, city administrators, and Tribal government. Which is all to say: a PhD student cannot just arrive at an Alaska Native village and expect a warm welcome. You need an invitation.

The invitation itself is multidimensional. In the case of one of my field sites, I sought invitations from all of the following: a community elder, the assistant principal of the school, the board of the corporation that owned the local land, the city government, and the Tribal government. For reasons described above, securing the invitation is itself a question of judgment: *have I received a sufficient blessing from enough people, or from the right people?* I cannot pretend to know a principled way to answer this question; at the end of the day, I trusted my judgment and the judgment of my mentors, and that proved to be sufficient.

Making Connections

In order to identify and recruit village governments to participate in my research, I sought out opportunities to travel beyond Nome to the 15 villages in the region—not to gather data, but simply to get my bearings. Through connections first made in Anchorage, I volunteered with a Nome-based nonprofit that travelled to villages in Norton Sound, providing free optometry exams for children and supplying eyeglasses when needed. The two non-Native optometrists who operated the nonprofit became my guides to the region; in exchange, I provided an extra set of hands at their makeshift clinics, which were set up in each village's school—usually in the corner of a classroom. Depending on the size of the village and the weather (which would determine if and when planes could arrive), our stay would usually last between two and five days. Although I was busy during the school hours, the afternoons and evenings gave me opportunities to walk around, meet with residents of the village, and connect with people who had known the optometrists for a decade or more. I sheepishly handed out my one-page flyers and made connections as I could. I told people about my research, but besides jotting down field notes each night, I was passively observing.

After a period of several months (September 2022 – February 2023), I had established sufficient connections to identify two communities to partner with. I chose Pastolik and Sinuk for several reasons:

- Both face urgent threats from climate change.
- They are very different in size; one is a small village relative to the region and the other is large.
- They are home to different people. Each is either Iñupiaq, Yup'ik, or Siberian Yupik. (I do not disclose which in order to preserve anonymity.)
- In many ways, some of which are discussed in Chapter 6, Pastolik and Sinuk are very different places.

I went through an ad hoc process to secure the blessings from the relevant Tribal leaders to return to the communities as a researcher. In one case, this required going before the Tribal Council or their staff—first by telephone, and then in person—and answering thoughtful and sceptical questions. To each community, I made the same request: to spend a few weeks conducting participant observation at the Tribal office. My request was met with curiosity and assent. "He seems nice and generally harmless," one Tribal Council elder said of me in his Alaska Native language, which was later translated for me by another Tribal Council member.

With these relationships in place—and others, such as knowing who in the school to ask for a place to sleep at night—I was able to begin a new phase of my fieldwork.

Field Visits

I moved to Nome in September 2022 and remained there until September 2023. This time was rich with ethnographic encounters. But it was also slow at times, and familiar. My time in Sinuk and Pastolik, however—between November 2022 and September 2023—was much more intense and focused. I visited each community four times, for a total of eight visits. In both villages, I made my first visit as an optometrist's assistant; in the subsequent villages, I was an invited researcher. (Students would inevitably recognise me and make jokes about glasses.) During research visits, I spent my days in the Tribal office buildings, known locally as "IRAs" (after the Indian Reorganization Act of 1934). I looked for opportunities to help—with the community food bank, with grant-writing, cross-referencing tax documents, and judging the winner of the 4th of July baking competition (the best judge, like Rousseau's legislator, is often an outsider). I also made efforts to walk about the communities, stopping in at events where appropriate, and becoming familiar with the landscape.

In addition to participant observation, I also conducted interviews with Tribal Council members, mayors, elders, ordinary citizens, and as many Tribal government employees as I could find. These interviews were free-flowing but covered several key themes: climate change

(often raised in the context of 2022 Typhoon Merbok), federal partnerships, grant applications, descriptions of an individual's workday, and support from Kawerak, Inc. (the regional Alaska Native nonprofit). I usually ended my interviews by asking participants what gave them hope about the future, and what they feared in the future.

In the absence of a clear typology of participants, I learned to look for saturation (Saunders et al., 2018) in my conversations. I noted similarities and differences between my two field sites, and among different sorts of participants (e.g., elected officials, government employees, and ordinary citizens). I also wrestled with what were necessarily small sample sizes; each Tribe had just 6-7 full-time employees in the office. In some instances, I made up for a low number of interview subjects with a higher number of interviews, often conducting several interviews over the course of months with key participants, and using my participant observation data as a central pillar of my analysis.

My approach of arriving, departing, and returning again added a longitudinal aspect to my research. I saw grant applications come and go and other major projects develop. Staff quit and others were hired. People grew ill, had surgery, began chemotherapy. There were deaths. One particular tragedy involved a community member who I would miss seeing around the village. Whales were or were not caught. A salmon season came and went. My research became privy to the seasonality of village life and the ways in which things can change—slowly or in an instant. Had I logged all my weeks in Sinuk and Pastolik back-to-back, I would have missed many of these developments.

Although I am not anthropologist, at times I wondered how my research might have unfolded differently had it taken place in the context of a year-long ethnography based in one village. In my encounters with Alaskan anthropologists—many of whom provided some degree of mentorship—I found myself marvelling at the richness of their ethnographic accounts. In particular, I listened and read with fascination how their stories had a way of spilling into the landscape, clearly facilitating a rich, environmental ethnography (e.g., Eichelberger, 2012; Marino, 2015; Sakakibara, 2017; Voinot-Baron, 2020). Stories of venturing out, participating in subsistence, and enjoying the patience of weeks, rather than days, permeated this research in a way that I could only partly replicate in my own work.

A further topic I wrestled with was the blurry distinction between participants and collaborators. In Pastolik in particular, a Tribal official became a close confidant and a colleague of sorts—she would read drafts of my articles, providing a sort of ad hoc Tribal review. Navigating these networks was always improvisatory. I developed these research

connections with the understanding that they ought to be long-lived relationships — I made commitments to participants that I wouldn't vanish and never be heard from again, as was the case with some visitors. Through a process of careful listening and observation—and patience—I succeeded in building an adequate level of trust with my community participants to facilitate a rich ethnographic encounter, rooted in relationships of trust that continue to this day.

Seeking—and Finding—Trust and Reciprocity

"At its crux," writes Kovach, "ethical protocol for Indigenous peoples is about relationality, and ethics is about trust" (2021: 127). Accepting help from someone requires a greater foundation of trust than accepting a check. Over the course of 17 months living in Alaska, the first 12 were primarily spent establishing relationships of trust, not collecting data. I share here three brief vignettes of this process: what it looked like, and what it felt like.

I first visited Pastolik in February 2023, travelling as an optometrist's assistant during a three-day visit. But before I went, I reached out to the "tribal coordinator," the de facto manager of the Tribal government. I got her information from a well-respected Alaska Native leader who works at Kawerak, the regional Alaska Native nonprofit. She provided me with the Tribal coordinator's phone number—and more importantly, a name I could reference when I reached out. The tribal coordinator and I first met in person when she brought her young son to the vision clinic, set up in the corner of the school cafeteria. We had the chance to put faces to names and made plans to have a conversation before I left.

I found an hour to drop by the tribal coordinator's office during my visit. I shared about my work and learned about hers. I asked about coming back to conduct research, and she asked me to send some more information about my research; she would check with the Tribal council. She also suggested I meet with the mayor, and facilitated a meeting. She and I had a good rapport, a tiny nucleus of trust.

In May, I returned to Pastolik as an invited researcher. I spent a week in the Tribal government offices conducting participant observation and interviews, eagerly reading any documents that were offered for me to look at. I occupied a chair in the break room, fortunately positioned right alongside the coffee machine, giving me an opportunity to visit with most of the half-dozen employees at least once during each day. At one point the mayor walked in from outside, looked at me, and joked loudly in his Native language, "what is that white guy still

doing here?!" Those in the office who understood laughed loudly; the mayor spent the next hour sharing stories with me while I refilled his coffee mug.

It was only on Thursday, just before I was scheduled to leave, that the tribal development officer, a prolific and proficient grant writer, mentioned a new grant opportunity she just learned about. She was visibly excited, having just completed a webinar with a federal agency, and feeling inspired by their invitation for pre-applications in any stage of completeness. I volunteered to help write up some of the application, and she assented. By that time, she and I had spoken for several hours over the course of the week—sometimes in the course of her diligently timed 15-minute breaks, sometimes during proper interviews that ran past the 60-minute mark. I met her daughter and grandsons as they came through the office. I shared a bit about my own life. We laughed and made jokes. I worked that afternoon on the grant proposal and sent the grant writer what I had by the end of the day. She loved it. I had been useful, if only the smallest way. (The particular grant was later funded, providing the Tribe with $400,000 to spend on local food procurement.)

I found that my research was particularly welcome when it was most obviously reciprocal and beneficial to my participants. I grew accustomed to watching Tribal leaders' expressions turn from scepticism to interest when I explained my research to them. My spiel went (and still goes) something like: "I'm looking into how Tribal governments work with the federal government, and trying to raise awareness about what works well and what doesn't." In an unexpected inversion, this sort of comment would lead people to pull me aside and ask to bend my ear. Most everyone living in Norton Sound villages had thoughts about Tribal government, and they were happy enough to share their thoughts while I recorded them in my notebook.

In its own way, Nome became a key field site in its own right. When asked where I was from, I would answer, "Portland, but I live in Nome now." Nome became a middle ground—the sort that would hardly exist for all geographers, but worked perfectly given the hub-and-spoke arrangement of Alaska Native villages. I was aware—dimly at first, then brightly—of a legacy that haunted short-term or periodic visitors to the High North.

> There's a saying up here that goes something like this — if you come up here from the South and you stop over at some place in the North for an hour, you can write an article for a newspaper; if you stay for overnight you can write a big article for a magazine; and if you stay for three days, you're an expert and you can write a whole book. (Lyall, 2011: 23)

Living in Nome was a tonic to that. I could leave a village without going back to "the South." On one day, I sat in Nome's only coffee shop and saw the mayor of Pastolik walking down the street. I ran out to meet with him. We spent the rest of the morning chatting over breakfast. I shared a house with an Iñupiaq friend, who turned out to be a relative of several of my closest research informants in Pastolik. When a Tribal Council member of Sinuk couldn't meet me one week while I was in her village, we arranged to meet at one of Nome's few restaurants on her next visit to the city. Although I was arriving to village field sites by airplane for relatively short visits, I felt that I avoided the "safari-scholar" (Trimble, 2008: 380) approach by remaining local. I excerpt from my field notes:

> Earlier today, I stopped by the coffee shop at the centre of town. Over the course of a few minutes, I saw a former student of mine [at the Nome campus of the University of Alaska Fairbanks] from the Native village of [withheld] who now works at the nearby graphite mine, a friend who teaches at the local school and also leads courses on Arctic wilderness survival, and a former colleague from the optometry clinic where I volunteered during my first months in the town.

Positioning myself in Nome was a compromise, but an effective one. It also required some politicking with the University of Cambridge, which was reluctant at times to give me such a long leash, and on one occasion caused the university equivalent of a minor diplomatic incident when some functionary I have never met came to believe that I had been conducting research abroad without the appropriate insurance. In sum, the University is barely set up to allow students to conduct research in such an immersive manner.

Figure 5: Nome.

In a small community (Nome plus the surrounding villages), I became known in a more-than-academic sense. I came to inhabit the region with a fuller, more bidirectional positionality—not just as a researcher, but also as a friend, student, teacher, onetime open-mic performer, dog handler (and later bona fide musher) with the Nome Kennel Club, and even a stringer for the local paper. Hearing of my decision to move to Nome on a relatively full-time basis, an Anchorage-based scientist surmised that I had gained the equivalent of ten years' of trust relative to a researcher based in a city farther afield.

Bureaucracy and Sovereignty: Seeking Alignment

The complexity of the "bureaucratic Iditarod" begs the question: does the bureaucracy regulating would-be researchers contribute to Alaska Native sovereignty, defined through the lens of Indigenous self-determination (Kalt, 2003)? And what epistemological frameworks could begin to address such a question? While gathering sufficient empirical evidence to

answer that question is beyond the scope of this research, it is worth considering some related empirical and theoretical approaches to the subject.

In a piece responding directly to the aforementioned study on alcoholism in an Alaska Native community, Kraus noted how bureaucratic systems designed to advance and protect Alaska Native interests routinely fail to do so, perhaps because *their structures are at odds with effective Indigenous participation*.

> Observers of the Alaskan scene have noticed an interesting phenomenon in which western corporate, bureaucratic structures staffed in many instances by non-Native transients with marginal professional training and qualifications and agendas having little to do with local culture, have been superimposed on traditional Native groups. In many communities, the results have been problematic. (1989: 78–79)

Consider that across the United States, Alaska Natives and American Indians are vastly under-represented in the healthcare profession—owing, at the risk of stating the obvious, to present and historical violence and injustices. According to the American Association of Medical Colleges, in 2021 there were just 2,583 active Alaska Native or American Indian physicians nationwide—comprising just 0.3% of all active physicians in the United States (American Association of Medical Colleges, n.d.). In the class of 2015, 18,000 students graduated from American medical schools; 20 were American Indian and/or Alaska Native (Gray, 2017). A dearth of trained medical staff means that, in Western Alaska, the vast majority of physicians and mid-level care providers[8] are non-Native.

Whereas an institutional review board at a university is normally comprised of academics, the Norton Sound 2023 Research Ethics Review Board was comprised of five Alaska Natives without healthcare training and one non-Native physician assistant PhD, who holds the position of "medical liaison" on the board. Functionally, arrangements like this pose sticky ontological questions about self-determination. Given that most IRB review documents are not fully intelligible to laypeople, this becomes an instance where a non-Native expert becomes tasked with assessing specialised knowledge and delivering their expert opinion to a Native audience of decisionmakers. Can such a system be held up as compatible with sovereignty?

When deliberations about issues of self-governance take place in highly technical language, the implications for sovereignty require serious consideration. During the course of

[8] In the U.S., a mid-level care provider is not a doctor nor a nurse. Generally speaking, they are certified as physician assistants or nurse practitioners.

my research, I had the experience of sitting around a table of Alaska Native decision-makers while non-Natives deliberated about issues of great importance to this particular village. Twice I joined a city council meeting while a non-Native engineer retained by this communicated with officials at the Federal Emergency Management Agency about damages following Typhoon Merbok via teleconference. Printed out on the table were copies of the engineer's report, which were highly technical. None of the city council members were engineers; they were essentially required to trust the engineer to advocate for their interests, in the same way that a client trusts a lawyer.

When technical knowledge is only transmitted through non-Native allies, Alaska Native communities' capacity for self-governance is necessarily impinged. These are not simply matters of translating technical knowledge into simple English. The concepts at play—whether they relate to a properly designed randomised control trial or the suitability of a seawall to hold back coastal erosion—cannot be translated from technical language into plain English without reducing complexity and nuance. String theory is not complicated because of the words used to describe it. The complexities of such matters—whether in theoretical physics or civil engineering or social science—are embedded in the concepts themselves, rather than in the vernacular used to express them. Making educated and informed decisions—which are prerequisite for consent—becomes a highly problematic undertaking under such conditions.

At present, it is not practical that Alaska Native doctors and Alaska Native engineers would assist Alaska Native communities with each occurrence of a problem requiring technical assistance. The challenge then becomes recognising the problematic at play and taking action to ensure that processes are as collaborative as possible.

Consider the relationship between a patient and his doctor. In most instances, the doctor will have specialised knowledge about the patient's condition that can only be reduced—not translated—into plain English. The doctor will try to do exactly that, often using metaphors to assist the process (Periyakoil, 2008). The patient has a partial understanding, but he likely won't know why the doctor prescribed one medicine instead of another, or at a dosage of 20mg instead of 10mg. The patient's understanding may also be restricted to certain metaphors. This necessarily limits a patient's sovereignty. He cannot sign himself up for surgery or write his own prescription. His lack of specialised knowledge is a limitation on his autonomy *per se*, since he might struggle credibly to suggest an alternative diagnosis. But despite these limitations, the process can work well—particularly when the patient and doctor have 1) shared objectives (Bradshaw, 2019) and 2) a relationship built upon trust.

The same two principles can be applied to the regional tribal research review process in Alaska—and in many instances to climate adaptation planning. Many non-Native medical experts who wield outsize authority on these boards have longstanding relationships with regional Native communities; many also share the objectives of advancing local priorities while protecting against harmful research. Reflecting on Kraus's observation, above, the success of these institutions requires an alignment of interests and functional relationships between Alaska Natives and non-Native technical experts. But the absence of these alignments can produce disastrous consequences.

In the case of climate adaptation planning, I witnessed collaborative relationships between engineering firms and Alaska Native villages that were putatively premised upon a shared objective. But the shared objective in some instances did not appear to be the protection of Alaska Native sovereignty or achieving an efficient pathway to climate resilience. Rather, the shared objective was raising money for infrastructure projects. In one instance, a non-Native engineer had successfully advocated that a village apply to the federal government for an eye-watering sum of money to finance a coastal rock wall. (I withhold the exact number to protect confidentiality). The same sum could have relocated the entire village, rebuilt the failing housing stock and created a generations-long solution to a worsening problem. But relocating the village would presumably have resulted in a dramatically smaller windfall for the engineering firm, which had built a relationship of trust with the village's officials and leaders. In interviews, I sensed that the client relationship was in some respects inverted; the village needed the firm more than the firm needed the village. "Mastery of language," wrote Frantz Fanon, "affords remarkable power" (1952: 18).

Conclusion

Throughout my research process, I found myself wrestling with the appropriate mechanism by which to obtain consent, access, and collaboration. This felt a bit like jumping into a rushing river; suddenly, I was immersed in a historical current of harmful research practices and well-intentioned efforts to establish new paradigms. In hindsight, I'm proud of the choices I made, and grateful that my well-intentioned efforts kept me from causing unintended harm. I also notice that the institutional supports—beyond my supervisor and individual mentors—often were hurdles to overcome rather than places where I could turn for mentorship and guidance. I was left to walk a tightrope, which involved making careful

decisions—such as spending four months in Anchorage before ever travelling to a majority-Alaska Native community—to ensure I wasn't too far out over the proverbial handlebars.

But what emerges from my meta-ethnographic encounter here is a pattern that goes beyond the infrastructure of the university, to show how technical bureaucracy has the capacity to attenuate sovereignty in covert ways. Indigenous governments are asked to mimic the colonial bureaucracy—a situation that is both ironic and tragic. And the result, in many instances—like the engineers based in Anchorage or the regional Tribal research review boards—is that non-Natives are still making decisions *on behalf of* Alaska Native communities and leaders. In Chapter 5, I explore how this mimicry is further institutionalised in the language of governmental "capacity," which Indigenous governments are presented as lacking.

Recognising these threats—and designing systems that prioritise shared objectives and trust—are critical to successful collaboration in a colonial context. In the context of my methodology, I found it most useful to try to engage as directly as possible with communities and participants, including by seeking consent through ad hoc channels, such as by presenting to a Tribal Council in person. This involved improvising intimate and face-to-face interactions to compensate for bureaucratic systems that were, in some instances, plainly dysfunctional or at odds with Tribal sovereignty. In some key respects, I believe that this bottom-up approach to designing my ethnographic intervention is more aligned with the principles of decolonial research than the minimally-functional, Western-style bureaucracy that aims to govern the landscape of would-be researchers in Alaska Native communities. In some respects, the contrast here is between a hylomorphic division of the *form* and *content* of decolonial research, as well as a commitment to the idea that extended ethnographic research engagements are *still* worth pursuing.

I worry about the increasing difficulty for researchers to conduct this sort of fieldwork. I was careful, and at times lucky, which led to my relative success. But the broader trend is that methodologies such as this one are becoming more difficult. Several key gatekeepers within the region gave me their tacit blessing to proceed with my research early on; had any one of them instead raised a red flag, I could just as easily have been shut out of Norton Sound. Which is to say: there was never any guarantee that my approach was going to work. But what is lost if scholars like me aren't able to attempt these sorts of studies? Sure, established anthropologists with large budgets will still find ways to study with Alaska Native communities, but these scholars are rarely able to take months at a time and immerse themselves in the region as a PhD student does during an ethnographic encounter. And this

generation of scholars with deep research relationships—mostly built during their own doctoral research ten or thirty years ago—may not be replaced with more junior ones. In that case, we leave these communities' stories to the journalists, who will show up and leave a few days later, with potentially negative consequences for all parties involved.

4. Environmental Ethnography

> "To try to understand the animal apart from its background, except as an imaginative exercise, is to risk the collapse of both. To be what they are they require each other"
> —Barry Lopez, Arctic Dreams (1986: 177)

This chapter parses the challenges and opportunities of environmental ethnography, a term I use to refer to a methodological affinity, a knapsack of geographical, anthropological, and critical theoretical tools to understand the more-than-human world. Environmental ethnography sometimes requires setting aside—or transgressing—certain inherited frameworks, such as the ontology of species, or the tacit assumption that ecological activity is the nearly-exclusive provenance of DNA-bearing lifeforms. While environmental ethnography is already widely practiced, it has not yet been clearly defined in scholarly literature. In the following pages, I provide some background to the theoretical origins of environmental ethnography. I then propose three boundaries that might distinguish environmental ethnography from related and complementary approaches, particularly multispecies ethnography. I conclude with a note on the term *ethnography*, an admittedly imperfect tool for the task at hand. Ultimately, environmental ethnography remains a work in progress.

When species comes up short

On the entrance to the village hall, taped to the door, a small poster announces, "2022 Seal / Algae Investigation (Voluntary)." It continues: "Intestine samples needed." It requests that hunters supply "~2-foot [61 cm] lengths" in plastic bags and ship them to a scientist via the local airline, whose friendly bush pilots wear sweatshirts and knit caps. The problem, the poster explains, involves *Alexandrium catenella* (a species) and *Pseudo-nitzschia* (a genus), which "negatively impact the health of mammals." Although the flyer does not specify which mammals, these algae are known to cause amnesic shellfish poisoning and paralytic shellfish poisoning when indirectly ingested by humans—either by eating shellfish directly or by eating shellfish-consuming animals (Woods Hole Oceanographic Institution et al., 2022). Next to this poster about algae and seals is another poster, announcing the first annual Young Hunters

Walrus Summit, to be held the next week in the regional hub of Nome, Alaska. One wonders: *What about walrus intestines?* The door offers no answers.

The door opens onto what scholars might identify as a multispecies issue. But it is more-than-multispecies and less-than-multispecies in ways that cause the term to buckle under the load. At play in this particular arrangement: seals, walrus, humans, two algae of ill-repute, and the shell-fishy food chain that connects these mammals to the dangerous dinoflagellates. But even this is a partial apprehension. There are forces at play that have no place within a species ontology, but which nevertheless take on leading and supporting roles. Climate change, for instance, is likely driving the increase in algae populations (Anderson et al., 2021; Gobler, 2020). The devastation wrought in the North Pacific by industrial whaling and walrus hunting in the 19th and 20th centuries created a famine in parts of Western Alaska, leading to changes in diet (less whale, more seal and walrus; Bockstoce, 2009; Demuth, 2019). Fossil fuels power the outboard motors used by today's hunters, fuelled by the mineralised bodies of Mesozoic plankton. Shifting patterns of sea ice have caused further changes in walrus and seal distribution, and in the prevalence of another seal-eating mammal: the polar bear (Rode et al., 2022).

In this instance, modern biology's concept of *life* is a blanket that is at once too small and too large. It cannot possibly cover the non-living forces like climate change and the changing patterns of ice in the Bering Sea. A biologized framework struggles to recognise these processes that do not contain DNA and do not metabolise (Clark and Yusoff, 2017; Povinelli, 2016). At the same time, the ontology of the *species* overshoots the particularity of these arrangements, which are local and utterly geographic. To make a species-wide conjecture about "seal-human relationships" based on this snapshot of place and time is to overlook the specific conditions of habitat, geology, and ecology. These are not species *among* other species, but species *within* geology *within* species… and so on. Finally, the seal-human-shellfish-algae-climate-boat-ice relationships in the North Bering Sea are likely poor proxies for any place besides the North Bering Sea. The nature of these relationships is both local and more-than-biological.

Before and after the "species turn"

In recent decades, the "posthuman turn" (Braidotti, 2013; Ferrando, 2016) and the "species turn" (Kirksey and Helmreich, 2010) have led to a panoply of boundary-pushing

research, much of which has made scholars more accountable to the earth and nonhuman forms of existence. In the wake of these shifts, posthuman ethnography fanned out in different directions. Multispecies ethnography has framed "animals, plants, fungi, and microbes… alongside humans in the realm of *bios*, with legibly biographical and political lives" (Kirksey and Helmreich, 2010: 545; see also Agamben, 1998). In a distinct but complementary approach, chemo-ethnographers have investigated the social and political significance of non-DNA-bearing forms of existence, such as industrial pollution, pharmaceuticals, and household chemicals (Engelmann and McCormack, 2021; Kirksey, 2020; Murphy, 2017; Pollock, 2016; Shapiro, 2015; Shapiro and Kirksey, 2017). A less-defined approach has eschewed biologized or chemical frameworks and instead taken what I term an *environmental* direction to understanding human and nonhuman worlds. Environmental ethnographies are still interested in DNA-bearing life and chemicals (e.g., greenhouse gases), but also attend to forms of existence that do not fit in either category, such as ice, mountains, land spirits, and fire (Hastrup, 2013; High, 2017; Povinelli, 2016; Pyne, 2004). This latter approach is of particular interest to geographers, precisely because it can accommodate the landscape itself as an object of ethnographic consideration.

These various approaches are hardly mutually exclusive; if anything, they are complementary. Nor are these categories meant to divide or sort scholars. The same researcher might variously undertake multispecies ethnographies, environmental ethnographies, and studies that are both environmental and multispecies. These are analytic tools—affinities, not identities. But retaining the capacity to draw a distinction between related but distinctive approaches is useful, particularly for geographers, whose emphasis on the importance of space and place is not necessarily considered in every multispecies ethnography.

In what follows, I use the term "biological life" or "organism" to refer to life forms with DNA—i.e., organisms that, within a Western geontology (Povinelli, 2016), are alive in a literal sense. I use the term "biological" here only in reference to the discipline of Western biology— and not in reference to Agamben's (1998) *zoe*/*bios* distinction (discussed below). I also follow Povinelli in using the term "existents" or "forms of existence" (2016: 5) to refer broadly to a category of things that includes biological life among other things without DNA—e.g., chemicals, glaciers, and smartphones.

It also bears mentioning that Western scholarship of the environment writ-large was only made possible by the notion of the *environment*, which itself arrived relatively recently into social and scientific thought in the early 20th century (Sloterdijk, 2005). The contemporary

understanding of the environment is often attributed to biologist Jacob von Uexküll, whose exploration of the animal *Umwelt* (environment-world) catalysed an early wave of posthumanist scholarship. Before von Uexküll, early, proto-environmental writings—such as Lucretius' *De Rerum Natura* (1994)—usually unfolded from a decidedly human viewpoint. Von Uexküll's writings, by contrast, "express the unreserved abandonment of every anthropocentric perspective in the life sciences and the radical dehumanisation of the image of nature" (Agamben, 2004: 39). This profound rethinking of the nature of experience—and of locating experience and sentience beyond the confines of the body and existing in concert with one's surroundings—would later animate the work of influential philosophers including Maurice Merleau-Ponty (2002), Martin Heidegger (2019), and Gilles Deleuze (Deleuze and Guattari, 1987). In sum, the advent of *environmental* thought facilitated new lines of scholarly inquiry based on understanding things in relationship to their contexts in a non-contingent way that emphasised belonging and connectedness. In what follows, I use the term "environment" to indicate, broadly, forms of existence that are related by affinities. These affinities are often geographical, but not always. I follow Ingold, who (following Heidegger) argues that a given "thing" in an environment "is not an object at all, but a certain gathering together of the threads of life" (2010a: 4).

Without suggesting that one approach to ethnography is more valuable than the other, I will argue that a certain modernist inertia might sometimes pull scholarship away from environmental (and by extension, more geographical) analysis. As humans with bodies, scholars tend to be relatively unmoored from place, accustomed to travelling thousands of miles for a job or a degree. Some of us are descended from settlers, without connections to land or sea that stretch along horizons of generational time. Many of us still travel great distances to conduct our research in faraway places, rather than examining our own homelands. Our understanding of belonging is rife with contingency. What's more, we are (mostly) indoor and urban creatures (Ingold, 2007). From our offices and bookshelves to the bike paths and rail lines along which we travel, our days are usually spent surrounded by the built environment. The city—or college town—is a terrarium of our own making. These places of human dwelling are not unnatural; but they are self-made habitats.

This is not a problem per se. We have much to learn from multispecies encounters between humans and nonhumans. Particularly when the object of study is related to the container itself—in the way urban birds have much to reveal about the cities they share with humans (Kirksey et al., 2018)—multispecies ethnography offers an intimate way for

geographers to explore our homes with new perspectives. But our disciplinary vocabulary would benefit from the ability to distinguish between ethnographies that focus on species as such, and those that are more concerned with the forms of existence occupying a given geographical setting. We must also take care to address the living contingency of some of these investigations—that many of our studies are not really about a *species* but about *specific* living and non-living organisms (Deleuze and Guattari, 1987: 239–241; Haraway, 2008: 88).

This chapter attempts to place a signpost of sorts at the junction of these different approaches. It does not seek to provide a taxonomy to define what counts as multispecies research as opposed to environmental research—such an effort would fall prey to the very universalisms this chapter interrogates. Rather, what follows is meant to scaffold discussions about how these two adjoining methods constellate with each other in productive and complementary ways. As part of this scaffolding, I offer an itinerary for environmental ethnography that resists the gravitational pull back to the familiar paradigms of humanist and universalist epistemologies.

Moving beyond the human

Environmental and multispecies ethnography have a shared heritage. Both grew out of a raft of 20th-century scholarship that "denaturalize[d] intrahuman differences established along the lines of gender, race, class, nation, caste, sexuality, and ability" (Kirksey and Helmreich, 2010: 550). This evolution was pioneered in part by scholars who took interest in the facts of life as such, turning the study of humankind away from the idealised *Vitruvian Man* and toward humanity's messy and queerer qualities. The breadth of human experience could not be measured in terms of deviation from an archetypal *Homo sapiens* (Braidotti, 2013). Idealisations of health, language, behaviour, and beauty were recast as unstable cultural contingencies (Butler, 1999; Foucault, 1994).

This work was further advanced by feminist scholars, whose studies on gender, kinship, dependency, and belonging reimagined what it means to be related (Haraway, 2016). These developments borrowed from pioneering work by biologists like Lynn Margulis, who illuminated micro- and macro-biological relationships governed by interdependency rather than competition (Hird, 2009). The paradigm of evolution as a contest — "survival of the fittest"— could hardly explain growing evidence that symbiosis was also a powerful force shaping life on Earth. Instances of "co-evolution," such as when a species of fig and a species

of wasp become mutually dependent, suggested that the development of biological life may rely as much upon cooperation as competition (Kirksey, 2015). The enterprise of biology continued to erode one of modernity's core principle: that ruthless inter-species and intra-species competition is the dominant force organising planetary life.

In this new critical understanding, Western scholarship reconsidered biological life as a process of mutual allowance. In time, new forms of ethnography, including multispecies research, emerged from the perforated boundary that separated humans from their supposedly passive environment (Braidotti, 2013; Descola, 2013). "Human nature" Anna Tsing observes in an essay about fungi colonising humanity, "is an interspecies relationship" (2012: 141).

The enterprise of Enlightenment science rested heavily upon the taken-for-granted notions that humans were somehow different from the rest of animals, plants, fungi, and bacteria. This dates back at least to Aristotle, who distinguished between *zoē (*animal, or bare, life) and *bios* (political life, see Agamben, 1998). Destabilising the ideal of *Homo sapiens* at the top of an evolutionary pyramid undermined the privileged positions of both science *and* the human (Braidotti, 2013; Hird, 2009). In this revised understanding, scholars recognised that "the world beyond the human is not a meaningless one made meaningful by humans" (Kohn, 2013: 72).

These studies of interrelatedness and interconnection led to bold retellings of the human place on planet Earth. Geographers are particularly well suited to contribute to these posthuman ethnographies by emphasising the importance and contingency of place. In doing so, we resist reproducing certain humanist ontologies of nature and associated biological universalisms that may unintentionally fall back into the universalising "view from nowhere" (Shapin, 1998). These opportunities (and hazards) warrant a careful consideration of the different-but-related issues of *environment* and *species*. By addressing the role of each in ethnography, I hope to provide a rough map by which to navigate this epistemological landscape. With an eye toward aligning more-than-human methodologies with more-than-human theory, I offer three axes that help locate environmental ethnography alongside to its multispecies cousin. These axes are not lines drawn in the earth but rather pivot points; their intention is not to shut out, but to welcome in.

Axis 1: Ecology

The first axis along which environmental and multispecies research diverge involves ecology. At times, multispecies ethnographies trend away from the ecological, instead delving into the intimate relationship of a handful of species, one of which is often human (e.g., Swanson, 2017; Van Dooren, 2014; Van Dooren and Rose, 2012). These investigations are often fruitful. But in some cases, they are also excisions, in which forms of existence are regarded with respect to one another, and less so with respect to their contexts. There is much to be learned from such a process, but also much to be missed. In the Bering Sea, the human consumption of toxic seal flesh is a process mediated by (at least) two other DNA-bearing creatures: toxic algae and their predators, the latter of which are often consumed by seals, a third DNA-bearing creature. And while the toxic algae comprise one species and one genus (with 58 known species), a vast array of snails, clams, crabs, fish, isopods, worms, and shrimp might also act as vectors in the transmission of toxic algae to seals. One survey of the bearded seal diet in the Bering and Chukchi Seas listed 12 species, 12 genera, and two families as "major prey species" (Lowry et al., 1980: 333). This is certainly a multispecies interaction, but when the species involved exhibit such taxonomic range, then the wider lens of ecology offers a more robust and manoeuvrable tool. In this case, environmental ethnography reveals a "contaminating relationality" (2015: 40), to borrow from Anna Tsing. "Everyone," she writes, "carries a history of contamination; purity is not an option" (2015: 27). The organism itself is only a partial perspective. Environmental ethnography draws attention to forms of biological life in the messy context of their environments. In doing so, it exhibits close allegiances to the "more-than-human" ethnography described by Maan Barua, including by attending to the "meshworks" of lively creatures and materials with relatively little regard for the role of species as a sense-making tool (2023: 19). The matsutake mushrooms studied by Tsing are the fruiting bodies of vast interspecies meshworks, involving trees and soils and humans—in sufficient complexity that all industrial attempts to cultivate matsutake have failed. In such settings, an attempt to enumerate the life forms involved in these complex arrangements are likely to fail. What's left is the option to attend to the broader whole.

Barry Lopez, one of the great environmental ethnographers of the 20th century, wrote about the hazards of multispecies ontologies that neglect broader ecological context. "To try to understand the animal apart from its background, except as an imaginative exercise, is to risk the collapse of both. To be what they are they require each other" (1986: 177). Taken out of

ecological context, multispecies ethnographies often offer fascinating insights into the relationships between biological life forms. In many cases, the absence of the "background" is itself an object of fruitful investigation, as in the case of endangered whooping cranes reared in captivity—where the lack of an ecological context itself offers lessons about care and companionship that would be markedly different if the birds were observed in the unbuilt environment (Van Dooren, 2014). Another delightful example is Eben Kirksey's study of wasps and figs in a botanist's laboratory (Kirksey, 2015).

Eduardo Kohn's "anthropology of life" (2007) is an example of an ethnography that does not tune out other biological life. Rather, it takes place in the messy presence of a cascade of interspecies relationships. Kohn's human research participants, the Runa, are deeply concerned with their canine friends, who themselves dream excitedly of other animals in the forest, including birds and jaguars. Kohn's apprehension of the human is a snippet in a cascade of relationships. His assessment is not a scrutinising gaze of an intersection of two species, but a wide-angle lens. "In many ways, dogs and people in Ávila live in independent worlds," writes Kohn. "Resting in the cool shade under the house, stealing off after the bitch next door, or… hunting down a deer on their own—dogs largely live their own lives" (2007: 9). Here, Kohn is observing the connections between humans and dogs as they unfold in the jungle's landscape amid a tangled web of interdependency and sovereignty (see also Lorimer et al., 2019).

There is something to the jungle and the forest that makes these connections easier to apprehend—or harder to ignore. Landscapes that appear visually and sensorily crowded to humans are more clearly home to interconnected forms of existence. By contrast, deserts (of sand, ice, water, or urban space) are often described as empty or relatively lifeless (Deleuze and Guattari, 1987: 382; Lezak, 2019). In such spaces, life more readily appears as a collection of individual creatures interacting on a passive and flat stage. This atomised vision is predisposed to focusing on *this* creature or *that* creature. Lopez wrote of the difficulty of unlearning the tendency to atomise. In one essay he recalls travelling with Indigenous companions in an unspecified landscape in the High North and noticing their proclivity to attend to the whole of their surroundings rather than the constituent parts:

> If my companions and I, for example, encountered a grizzly bear feeding on a caribou carcass, I would tend to focus almost exclusively on the bear. My companions would focus on the part of the world of which, at that moment, the bear was only a fragment. The bear here might be compared with a bonfire, a kind of incandescence that throws light on everything around it. My companions would glance off into the outer reaches of that light, then look back to the fire, back and forth. (2015)

In contrast with this incandescent immersion, certain multi-species ethnographies could be coded as "encounter with [species]." Often, those ethnographies yield rich insights. But in many instances, they are not environmental because they still rely on just a handful of focal points—spotlights on a darkened stage. There is much to be learned about our more-than-human condition by venturing out, epistemologically, into the landscapes that do not strictly belong to us.

Axis 2: Species-Logic, Organism Logic

The second axis concerns two distinct but related problems of scale. One is the perforating definition of the organism. The other: the limited and anthropocentric concept of the species itself. Although they are scalar opposites, the two problems are profoundly linked, nested within each other. The concept of the species as a bounded unit is modelled after the concept of the organism as a bounded unit (*Abstract Sex : Philosophy, Biotechnology and the Mutations of Desire*, 2004; Haraway, 2008, 2016; Hird, 2009; Kirksey, 2015). But consider the seals of the Bering Sea. The notion of the species is too broad to encompass the particular issue at play for the subsistence hunters of Western Alaska and bearded seals (*Erignathus barbatus*). Bearded seals are a circumpolar species, occupying a vast territory spanning the North Pacific, North Atlantic, and Arctic Oceans. Their diet varies considerably with their geography. For any number of reasons, the bearded seals along the northern coast of Siberia likely have a very different relationship to local algae. The notion of the species is also too narrow, since the organism of the bearded seal is usually considered to be distinct from the harmful algae within it— ditto the shellfish mediating the seal-algae relationships. In instances like these, the notion of species itself struggles to contain the unruly and geographical contingencies of the environment. In this way, practicing environmental ethnography requires a careful attunement to the logic of the species and organism alike.

Long before posthumanist scholarship became a staple of geography and anthropology, philosophers and psychologists began interrogating the notion of the sovereign being and the environment (Heidegger, 2019; Merleau-Ponty, 2002). Their work followed (and in some cases paralleled) millennia of non-Western thought that had arrived at similar conclusions and was ignored by (or considered inadmissible to) academia (Ferrando, 2016). In the 1960s, Western writers such as Alan Watts brought these concepts into mainstream Western society, drawing directly upon non-Western philosophy and religion. "The prevalent sensation of oneself as a

separate ego enclosed in a bag of skin is a hallucination," wrote Watts (1989), "which accords neither with Western science nor with the experimental philosophy-religions of the East." At the same time, microbiology began entertaining the notion that organisms thrived not in spite of the porosity of their membranes, but because of it. *Contamination* replaced *containment* in certain conversations around the prerequisites for life, based on the observation that, generally speaking, no critter could survive when sealed off from its environment (Ingold, 2007; Parisi, 2004; Tsing, 2015: 27–36).

Multispecies ethnography is often conducted from a conventional "epidermal point of view" (Povinelli, 2016: 40), wherein organisms relate to each other as sovereign bodies inhabiting empty space. A fascination with membranes—and the subsequent notion that what lies within the skin is an indivisible whole—underpins a concept of life as composed of sovereign biological units. The notion of the multicellular organism itself depends upon a dualism between what counts as living tissue and what belongs to the external world. From this perspective, a lock of hair is a part of the body until a pair of scissors transforms it into part of the outside world.

This problematic ontology of the multicellular organism, in turn, provides a scalar metaphor for the idea of the species, yet another sovereign collective (Ingold, 2013). At the core of traditional species logic is the notion that a species is made up of individual organisms in the way that an organism is made up of many cells—collective identities, not heterogeneous affinities (Dupré, 1992). Both species and organisms are products of this epidermal perspective.

Species Logic

Every summer, birdwatchers travel thousands of miles to Western Alaska for the express purpose of seeing a handful of birds, which they call "lifers"—meaning, a bird that one would like to see at least once in a lifetime. A frequent lifer is the bristle-thighed curlew. On one marathon day of birdwatching in summer 2023, curlews were scarce, but there was an abundance of more common whimbrels. The whimbrels caused considerable irritation to some members of this organised tour. Even with the aid of binoculars and spotting scopes, whimbrels and bristle-thighed curlews are nearly indistinguishable except by their calls. Time and again the group experienced a hopeful elation, only to be disappointed when the bird in question sang a beautiful, gently accelerating trill. Another whimbrel. Sighs of frustration. No member of this outing seemed to believe that the bristle-thighed curlew's song was more beautiful. But the

curlew was rarer. Here, taxonomy had cleaved a fissure between two animals that share a genus and a summer breeding ground along the Seward Peninsula, but sing different songs. The ontology of species—not musical preferences—led these travellers to yearn for one tune and grumble at the sound of another.

The origins of species logic are closely attached to evolutionary theory (Deleuze and Guattari, 1987: 48; Dupré, 1993: 38–44). As such, it has certain uncomfortable allegiances to the ideas of competitive reproduction ("survival of the fittest"). In multispecies ethnography, the logic of species often (but not always) underpins the notion that members of a species share a collective story (Dooren and Rose, 2013). This universalism is often well-grounded, as in the case of some animals on the brink of extinction (Kirksey, 2015), where the last members of a given species occupy a single wildlife preserve or even a zoo, or in the case of animals that occupy an exceedingly small range, such as the Devils Hole pupfish (*Cyprinodon diabolis*). Species ontology can provide an organising logic by making endangered and threatened animals legible to policymakers and publics, which then facilitates conservation (Kirksey, 2015; Van Dooren, 2014). In the United States, the protection of entire ecosystems is often enacted through legal channels that rely upon the Endangered Species Act of 1973, which permits the protection of vast stretches of habitat and complex ecologies in the name of a particular population. Frequently, habitat protection in U.S. policymaking requires the identification of an endangered species within an endangered ecosystem that can justify federal intervention through the ESA (Scoville, 2019). In such instances, the logic of the species functions as a sort of "propositional hinge" (a concept first formulated by Ludwig Wittgenstein), an axis "around which an entire apparatus of practical and propositional knowledge about the world turns" (Povinelli, 2016: 37).

Historically, species have been regarded as stable categories "that exist in nature independently of their discovery, or naming, by humans" (Dupré, 1992: 312). More recently, the logic of the species is the subject of fraught debate among interdisciplinary scholars (Wilson, 1999). To speak of the species-whole can sometimes result in performing the "god trick" (Haraway, 1988: 581) that slides carelessly from the partial perspective into a universal claim. The logic of species also raises difficult questions about how species develop and become—as evolution is a continual process of becoming, and we humans are biased toward seeing slow-moving systems as permanently fixed in place (Dupré, 1992). The species concept "might reify an Aristotelian notion of fixed difference" (Kirksey, 2015: 773); but like mountain

ranges and constellations, species are in constant motion, and it is our bias toward human timescales and neat taxonomies that lends them the quality of apparent stasis.

The hazard of species logic is the capacity to reduce the individuality of organisms into "a catalogue of biodiversity" (Ingold, 2013: 19). In an uncritical species logic, a multispecies ethnography of sewer rats in London becomes a human-rat ethnography, as opposed to an ethnography of a handful of observed rats, and a handful of observed humans, in a particular place, at a particular time. "The lone wolf is not fundamentally a characteristic or a certain number of characteristics," write Deleuze and Guattari (1987: 239). Fundamentally, the lone wolf is an instance of contingency, connection, and setting. Tsing's (2015) ethnography of matsutake mushrooms is notable for her practice of encountering one species across three different continents, and paying careful attention to the ways in which matsutake-human relationships change with geography.

As contemporary geographers, we are accustomed to avoiding species logic in many instances. Kohn's (2007) environmental ethnography of the Runa is not an ethnography of *Homo sapiens*. But despite our scholarly commitments to observing the extraordinary differences within our own (human) species, we sometimes settle into the habit of speaking about nonhumans as interchangeable clones, with an essential core that exists purely by dint of genetic conformity. Consider the ontology of sub-species. The domestic dog is one single species: *Canis familiaris*, and so to say, "I love Border Collies," is to make a statement about a sub-species. When applied to animals, these are topics of casual, first-date conversations. Applied to humans, the same concepts of sub-species become hideously racist (Haraway, 2008). We are comfortable with the universalising logic of genetics only when it is applied to nonhumans. The totalising arguments that we forcefully refute in human contexts become commonplace in the context of multispecies arguments. The double standard reveals a proclivity toward treating humans as individuals that is less readily extended to nonhumans.

This is not a call to throw out species logic altogether. "Abandoning the notion of species," cautions Kirksey, "would mean losing a useful tool for grappling with other animate beings… to study the relational becomings of entangled plant, fungal, microbial, animal, and human communities " (2015: 777). In response to a complicated ontological landscape, Dupré proposes a "pluralistic answer: in some contexts species are treated as individuals, in others as kinds" (1993: 43). Maintaining this hybridity requires engaging thoughtfully with the assumptions underlying species-logic that might otherwise go unnoticed. Often, individuals and kinds may overlap. For example, Van Dooren's study of nearly-extinct whooping cranes,

mentioned above, is a case when "care for the species and care for the individual birds… are bound together in mutually reinforcing ways" (2014: 91).

"We must be hostile to easy relativisms and holisms built out of summing and subsuming parts" cautions Donna Haraway (1988: 585). We see as much in Haraway's fruitful research relationship with Ms. Cayenne Pepper, a cohabitating canid (2008). Suffice to say: Pepper is not a stand-in for any dog other than herself, and Haraway, in turn, is deeply reverent towards Pepper's singular existence. This is not a human-dog ethnography, but a Donna Haraway-Ms. Cayenne Pepper ethnography. "Individuated critters matter; they are mortal and fleshly knottings, not ultimate units of being" (Haraway, 2008: 88). Species, in this particular instance, has little to do with it.

Organism logic

The logic of the species cinches up myriad forms of biological life into tight-knit collectives. The logic of the organism does precisely the same, but on a cellular scale. In the organism ontology, two myths underpin the epidermal perspective of organisms as self-enclosed beings: metabolic individuality (Povinelli, 2016)—the idea that we are separate from our environments—and genetic individuality—the notion of each organism as genetically distinct from all other species of life. Above, I illustrated how species logic might generalise from a few organisms into a global unit (Dupré, 1993; Kirksey, 2015). Organism logic acts in a similar way, facilitating an ontology in which life itself is restricted to that which occurs inside the walls of skin and comprised of any number of cells and minerals.

This organismal reading of life reflects the values of the society from which it emerged: a Western framework that champions individuals over society or kin. We imagine that the spaces outside of these organisms are neutral and inert. In this common understanding, life itself is regarded as something that unfolds in the gooey enclosures of bodies (Ingold, 2007). But organisms are not like satellites in space, orbiting through inert emptiness. Organisms "relate not as closed forms but by virtue of their common immersion" (Ingold, 2007: 1). Life, Povinelli explains, is "external to the other only if the scale of our perception is confined to the skin, to a set of epidermal enclosures. But human lungs are constant reminders that this separation is imaginary. Where is the human body if it is viewed from within the lung?" (2016: 42) Biological life is sustained by the porosity of bodies as much as by their impermeability. Put differently, the divide between biological life and non-life (atmosphere, water, nutrients in

the soil) is a heuristic device; the separation of these two categories can only stand from a particular (epidermal) perspective.

Contemporary biology is filled with refutations of organism logic (Gilbert et al., 2012). The most well-known instance of this is the relationship of mitochondria to eukaryotes (Hird, 2009). Beginning in the 1960s, biologists found that the DNA of mitochondria—which are responsible for cellular respiration—are entirely distinct from the DNA of the multicellular organisms they inhabit. (Hundreds of millions of years of multicellular life has led to only one instance of a genus that evolved away from this relationship with mitochondria—an unassuming flagellate named *Monocercomonoides*.) Unlike humans, mitochondria have a single, linear chromosome, on two strands—entirely separate from the nuclear DNA with its familiar 23 chromosomes. Put differently, part of the DNA of our own cells is not entirely our own, but is rather an inheritance, passed matrilineally in humans, and shared with almost all multicellular life. The logic of the organism cannot even rest on the notion of sovereign DNA. Put under biology's own microscope, the concept of the organism increasingly appears as a heuristic model rather than a faithful mapping of reality.

We are left to reckon with how supposedly sovereign organisms, in fact, "are species multiples, crowded with swarming forms of life" (Kirksey, 2015: 776). In a less corporeal sense, organisms are also composed of—and enacted by—practices, politics, technologies, and a host of social and cultural forces that are not observed with technologies of genetic sequencing (Mol, 2003). For example, ideas and practices of/about disease (e.g., malaria and Covid-19) exert forces upon genetically distinct organisms (e.g., mosquitoes, bats, and pangolins), which in turn press upon public policy and human thought (Kirksey, 2015). A multiplicity of biological and non-biological forms of existence may exist and overlap within a singular organismal whole. "[E]very animal is fundamentally a band, a pack" (Deleuze and Guattari, 1987: 239).

In some parts of Western Alaska, walrus ivory carving remains a key source of income for many. In one village, I spoke with several carvers who proudly mention supporting their families through their art. But, two added, it's become much harder in recent years. Walrus remains a food staple, but changing attitudes toward ivory—and changing laws, such as the UK's recent ban on imported walrus ivory—have made it much more difficult for carvers to sell to their work. Pacific walrus are not considered an endangered species by regulatory authorities, nor do they attract the sort of public affection as whales or elephants. But the fact that their tusks are reminiscent of other, beloved and/or endangered animals—e.g., elephants,

rhinoceroses, narwhals—caused a shift in both public attitudes and regulations with material consequences for Western Alaskans. Although walrus ivory is indelibly part of a walrus, to many, they trigger a salient association with animals to which walrus share little more than membership in the class *Mammalia*. In this case, the mere presence of a tusk links elephant lives in Africa to walrus lives in the North Bering Sea. In Western Alaska, the putative sovereignty of the walrus-as-organism folds before a transnational assemblage of policymakers and activists, who are primarily concerned with entirely different species on separate continents. The political pressure linking walrus and human livelihoods to elephant ones reveals the leakiness in organism logic.

Another genre of epidermally-sceptical environmental research comes from the study of organisms that decompose (e.g., Paxson 2008; Hird 2012). Bacteria remind us that the boundaries of self and other are lively spaces. What passes inside and outside of bodies does not vacillate between self and other. Rather, these categories are plural and porous. Jamie Lorimer offers a helpful story, set "in the graveyard of a wizened botanist."

> Waving a windfall apple, she traced the fruit's possible molecular history—from subterranean human corpse, broken by bacteria, carried in the body of a worm to the reaching roots. Lifted high to branch, to bud, and finally to fruit. A bite, a chew, a swallow, and, after some acidic digestion, into me. From human to humus to human again through a humorous, rotten epiphany. (2016: 235)

Looking beyond the ontology of the organism encourages an attention to environments and geography, particularly those that don't fit the clean notion of "natural habitat. Many urban ecologies are particularly attuned to relationships of organisms and their surroundings. Many forms of biological life make their homes in cities and fields. Urban ecology reminds us that these are not unnatural spaces that are separate from biological life, but hybrid and cyborg (Swyngedouw, 1996; Whatmore, 2002).

Recent work attending to such complex habitats includes research on urban ecologies (Hinchliffe et al., 2005) and other "feral spaces" of "human and non-human becomings" (Hinchliffe and Whatmore, 2009: 106). These habitats are not just useful for thinking-with animals and plants, but for understanding economic practices, politics, infrastructure, and how cities and suburbs themselves are "co-fabricated with other-than-human life" (Barua and Sinha, 2022: 1). Part of what makes these urban ecologies so successful is their grounding in ecology *per se*, rather than a subset of life forms moving through a passive urban landscape. This owes

in no small part to the necessarily geographic attention paid to the city-as-space—the context becomes the foreground.

The importance of this more-than-organismal perspective becomes especially clear when we consider migratory animals (e.g., Van Dooren, 2014: 87–122). One might pick up a garden snail or saddle a horse and thereby conduct a backyard multispecies ethnography—but any reference to the environment would be at the discretion of the human observer. The encounter will always be multispecies, but not necessarily environmental—or even geographical. By contrast, migration requires a reckoning with geography. Across the Pacific Northwest of North America, for instance, salmon are loaded by the millions onto tanker trucks, and driven in lightless metal chambers from inland hatcheries to the coastline, where young fish are unceremoniously poured into the sea like so many grains of sand. This set of practices continues to shape some of the largest rivers on the planet, as salmon exert influence on how humans design and build dams (Swanson, 2017)—and increasingly, how they are torn down (Stoffle, 2022). A multispecies ethnography of humans and salmon would be incomplete without river-ocean-truck-dam-hatchery-fishermen playing their distinct roles in survival and reproduction (Swanson, 2022). Such encounters—ethnographic or otherwise—are necessarily environmental, attuned to the spaces between existents. Environmental ethnography is particularly open to these spaces in-between, and the various forces, metabolisms, and energies that flow between bodies. Attending to the spaces in between allows a greater attunement to affect (Massumi, 2002) and attachment (Anderson, 2022). Life itself is "not like a tree where the roots have to end somewhere" (Siken, 2019).

Axis 3: Life and Nonlife

Research in geography and anthropology often tacitly slips into the Western ontological divide between biological life and non-biological existents. In Western urban contexts, non-biological existents are sometimes dismissed as a by-product of humanity, a social exoskeleton of walls, roads, and railways. In some unbuilt environments, like the Amazon rainforest, non-biological existents may appear relatively quiet against the panoply of metabolic life. But in other contexts, these forms are more easily noticed, and harder to regard as a "substratum" (Ingold, 2010b: 123) for human activity. Whereas the second axis, above, exhorts environmental researchers to pay attention to ontologies of biological life that separate inside from outside, this axis pays attention to the geontologies (Povinelli, 2016) that separate

biological life from non-biological existents, such as mountains, rivers, oceans, the sky, clouds, tectonic plates, stars, magnetic fields, and so on.

In Western Alaska, the forces of water, ice, wind, soil, and sunlight are obvious on the landscape. For the Yup'ik, Siberian Yupik, and Iñupiaq subsistence hunters who have lived here for millennia, the connection between these forces and local plants and animals determines the availability of food in a given year. The way in which toxic algae have come to endanger a nutritional staple in the Bering Sea is inseparable from climatic and oceanic changes—notably, warming sea temperatures that have led to "massive" algal blooms (Anderson et al., 2021). Continued and worsening marine events threaten a cascade of changes for Indigenous communities in Western Alaska, including the potential for paralytic shellfish poisoning, a heightened dependence upon imported Western foods, a corresponding need for waged labour, the attenuation of traditional hunting practices, and consequences for social structures as hunters seek out ways to earn money to replace the niche previously occupied by seals. These are issues that deserve ethnographic perspectives, but accommodating these shifts requires a framework that is more-than-multispecies, at least in the sense whereby "multispecies ethnographers are studying the host of *organisms* whose lives and deaths are linked to human social worlds" (Kirksey and Helmreich, 2010: 545, my emphasis).

Standing at the frozen margin of land and ocean one evening in April, I spoke to hunters as they butchered a bearded seal. The mood was not celebratory but sombre. It was the peak of spring in the North Bering Sea, when whales migrate north. But for two weeks, the pack ice extended for miles before leading to open water. That day, there had been a brief opening. The hunters had gone out for bowhead whale; the relatively small seal was a meagre consolation prize. The wind, they explained, was out of the south, which consolidated the pack ice on the shore, pushing the whales' spring migration east, toward Russia. The rest of the whaling season would pass without striking a single whale, with immediate repercussions for food security. Environmental ethnography invites us to explicitly attend to non-biological existents like wind and ice, placing them centre-stage in ethnographic investigations.

"What counts as life, and what doesn't shapes how we imagine more-than-human community (Povinelli, 2016: 39). The notion that things with DNA occupy a separate political sphere as things without DNA is largely a creation of Western bioscience. Just as biology was a "translation and purification" (Lorimer, 2015: 22) of the world into a neatly taxonomized biosphere, geology established a further distinction by reinforcing the distinction that divested nonlife of most properties except a Newtonian capacity to react (Clark and Yusoff, 2017).

For geographers, this often (but hardly always) appears as the ontological segregation of "land" and "life," which came from two of modernity's most successful projects: the social construction of land as inert, and the establishment of an ontological dualism between what is "natural" and what is not (Descola, 2013; Whatmore, 2002). This cosmology allowed land to become property, separate from the life attached to that same land (Li, 2014). For the first time, humans and their institutions could lay claim to life under the auspices of only claiming the two-dimensional notion of land represented on maps and deeds. For instance, across North America in the 19th century, so-called "land claims" were in fact claims to fur animals, forests, fish, and whales (Demuth, 2019). The ontological fissure of life and territory became a near prerequisite for this particular mode of conquest that went on to shape much of the contemporary world (Wolfe, 2006: 387). This separation underwrote some of the most destructive processes in recent history, including settler colonialism and the extractive mentalities that parcel out "subsurface rights" onto sheets of paper that authorise mining and water extraction.

The post-Holocene epoch reveals the obviousness of our misconceptions, "pulling the 'socio' and the 'geo' together into new discursive formations" (Clark and Yusoff, 2017: 14). The so-called Anthropocene is not a metaphor for the long-ignored interconnectedness of human and nonhuman biological life; if anything, it is a metaphor for the interconnectedness of biological life and non-biological existents (Povinelli, 2016). With increasing frequency, the vitality of nonlife comes into human lives in startling and shocking ways. For example, the explosion of wildfires in places once thought immune to such disasters has led to a wholesale re-evaluation of the impact of nonlife on humans and other biological life. In my hometown, people now speak ominously of "smoke season" and "defendable space." *Defendable.* What better word to capture the force of nonlife than the notion of building a fortress to protect oneself from a calamitous threat—in this case, one that cannot be held, stabilised, or even captured in a glass vial. Fire races, climbs, and licks its way into our lives—reacting, not as a tennis ball does to a racket, but with an unpredictability that exceeds our dogged efforts at containment. Its vitality makes some critters look positively inert by comparison. Stephen Pyne's environmental ethnographies argue that humans do not control fire, but that we grew up together 1997, 2004. This work exemplifies what sorts of political and social forces are not normally contained within ethnographic frameworks, but nonetheless deserve attention as vital agents in more-than-human landscapes.

Consider ice. Across the planet, ice is a central force in many landscapes and ecosystems, mediating between lifeforms (Bravo, 2010; Veland and Lynch, 2017). As I write this, the Norton Sound community in Western Alaska is reeling from the death of a mother and her child last week. They were killed by a polar bear in a neighbouring village, the first such death in Alaska since the 1980s. In January, polar bears would normally be hunting far from the shoreline, on sea ice. This year, the ice has come in late. Together with climate change, ice plays a central role in determining human-polar encounters (Rode et al., 2022).

> “The ice certainly does something in the Arctic," writes Kirstin Hastrup (see Figure 6)
>
> It is not simply a placeholder; as an agent, it has also infiltrated all representations of the Arctic… Emplacement within the Arctic topography is literally towered over by geographical structures of such magnitude that there can be no escaping from them. (2013: 52)

This feeling of *emplacement* within topography is not merely an Arctic phenomenon. It is just more noticeable in landscapes where carbon-based life is not itself a surface (such as the ocean, the desert, and the sea ice).

Figure 6: “The ice certainly does something.”

Recently, geographers have also dedicated a growing volume of research to the *elemental* (for an overview, see Engelmann and McCormack, 2021). This work is particularly exciting for its attention to the in-between forces that are essential to geographical inquiry (Nassar, 2021; Simpson, 2017). These entanglements are focused on connection rather than difference. For example, geographers working in the blue humanities, an emerging term for scholarship with a particular consideration for life in and around oceans, are particularly attuned to the way in which life does not simply float through inert spaces but is partly constituted *by* those spaces. These works, perhaps by virtue of centring on a medium other than land and air, pay particular consideration to these generative fluxes (Jue, 2020; Steinberg and Peters, 2015). In a compelling statement on marine environments, Peters and Steinberg suggest viewing the ocean as a complete whole, together with its biological life: "we see these elements as emanating outward from and refracting from the ocean so that, in effect, they too are the ocean" (2019: 294). The echoes of Lopez's incandescent bear, above, are hard to miss. Similar explorations of the elemental have also delved into the subterranean (Squire and Dodds, 2020) and even latitude itself (Bravo, 2019).

Another fruitful trend in environmental ethnography concerns the incorporation of non-organic chemicals into broader tapestries of biological life and non-biological existents. The "chemical turn" (Balayannis and Garnett, 2020) in social sciences draws attention to the often invisible but powerful forces mediating "economic, personal, political, and sentimental relationships that have emerged with modern chemistry" (Shapiro and Kirksey, 2017: 482). These interactions are distinctly plural. Chemicals (e.g., pesticides and antibiotics) can protect certain life forms even as they impinge upon others, echoing work by Tsing and others on how disturbance yields complex topographies of opportunity, loss, and desire (Kirksey, 2020; Pollock, 2016; Tsing, 2015). Chemo-ethnography is pioneering novel approaches to ethnographic thought by attending to nonliving entities—whether in pharmaceuticals, water quality (Murphy, 2017), or domestic buildings (Shapiro, 2015). In many respects, some of the recent humanities scholarship on climate change, driven largely by carbon-dioxide and methane, could be called chemo-ethnography. Chemo-ethnography is also notable for its discourse on chemicals as both categories (types/kinds) and objects, reminiscent of the pluralist ontologies advocated by Dupré (1993). For example, polychlorinated biphenyls (PCBs) *do something* in the world both as individual molecules (e.g., by bioaccumulating in fatty tissues) and also as a declarative category (i.e., distinct from the molecular objects themselves) by

causing changes in human industry, national and global regulatory schema, consumer preferences, and even epigenetics (Murphy, 2017).

A note on the term "ethnography"

This chapter focuses primarily on what it means for an ethnography to be *environmental*, and how that quality might overlap with or differ from *multispecies* research. But the term "ethnography" also deserves a word of attention. In broad strokes, writes geographer Nick Megoran, ethnography "classically denotes an extended sojourn amongst a group of people where the researcher immerses himself or herself in daily life, continuously reflecting on meticulously kept fieldnotes, to learn the social understandings of the group in its own terms" (2006: 625). Unlike many other social scientific methods, ethnography eschews research methods that attempt to create reproducible results by means of controlling certain elements of the research process (e.g., surveys, focus groups, or structured interviews). Instead, it embraces "an ethos of practical experimentation" (Hitchings and Latham, 2020: 977), quietly at odds with the part of the scientific method in which the hypothesis always precedes the data analysis. Ethnographers' openness to the field offers a humbler way to approach scholarship, particularly in settings with fraught power dynamics (Saville, 2021).

For many geographers, ethnography is an imperfect term: borrowed from anthropologists, but never fully retooled for our purposes. (Herbert, 2000: 564) It is possible that geographers' wariness toward ethnography simply came from a hesitance to trade in the currency of another discipline. Whatever the cause, the past two decades saw an uptick in geographers' use of explicitly ethnographic methods. Recently, geographers have labelled myriad approaches and methods "ethnographic" (Hitchings and Latham, 2020).

Even within anthropology, the term is the subject of heated debate. "Ethnography is not a method," insists Tim Ingold (2017: 23). For Ingold, ethnography is always at risk of alienating the object of the study—by rendering it an object in the first instance rather than encountering our research participants on a level epistemological field. Instead, Ingold exhorts readers to focus on the humility of participation observation (Ingold, 2014, 2017). Perhaps the term "environmental participant observation" is a more accurate combination of words to describe the process of attuning to one's environment as an observer-interlocutor than environmental ethnography.

These arguments are important, but they are also semantic. Our terminology is ultimately in service of our scholarship and not the other way around. These are imperfect

terms, ripe for replacement by future researchers. This chapter is not about the term "environmental ethnography," but about the practice itself. That said, there is something about ethnography worth retaining. There is a patience implied by ethnographic research (Hitchings and Latham, 2020). Geographers, literary critics, philosophers, shamans—all might practice environmental ethnography on any given day. This is the patience of letting understanding unfold at a schedule determined by the field site and its many participants (Ingold, 2014). It is the humility of gathering only that which is offered, when it is offered.

In practice, such patience is a tonic against quick judgment or generalisations. When I met with one Alaska Native village council to ask permission to conduct research, the tribal president told me, sternly, "you're only looking at four villages — we have, 20, I think, in the whole region. And they are all very different." Our fellow human beings are uniquely equipped to tell researchers to stay longer, to broaden their sample size, or to come back in winter and see how different it is. Working with nonhuman research participants also requires this patience. In the High North, for example, populations of caribou experience regular cycles of population growth and collapse. In one year, an Alaska Native village might land five bowhead whales; in the past two years, one particular village has not caught a single one, with significant repercussions for local food security. A reticence to make ethnographic statements about a species, per se, is ultimately a hesitation about generalising from a sample to a broader population. Often, this hesitation is informed by an appreciation for the importance of geographic contingency. Similarly, patience in practising environmental ethnography wisely heeds a hesitation to generalise across time scales, a reluctance to extrapolate a larger truth from a relatively short moment.

Conclusion: Towards an Environmental Ethnography

What does it mean to "do" environmental ethnography? At its core, environmental ethnography decentres the human in patient and curious inquiry, seeking insights from scales that confound our usual sensibilities. Often in alignment with multispecies research, this involves stepping beyond atomistic human-nonhuman comparisons and looking instead for unlikely and sometimes less-charismatic research participants.

In many instances, this requires an openness to mismatches of scale. Animals are more amenable to traditional ethnographic methods, which is precisely why environmental ethnography often looks to less charismatic and obvious forms of existence. Recent endeavours

in environmental ethnography (some of which have already been mentioned above), include attending to forms of existence that are often overlooked as empty context, such as weather (Rantala et al., 2011; Simpson, 2017), ice (Hastrup, 2013; Veland and Lynch, 2017), pollution (da Costa, 2008; Nassar, 2021), and forests (Kohn, 2013; Tsing, 2015), Others include affective and less tangible entities, such as Aboriginal Australian Dreamings (totemic formations, Povinelli, 2016), the dreams of dogs (Kohn, 2007), anticipation (Reeves, 2017), and hunger (Phillips, 2018). Others still attend to objects and entities that are often regarded as inert, such as gold ore (High, 2007, 2017), garbage (Bennett, 2004), and fire (Pyne, 1997, 2004).

The value of these propositions is the extension of posthumanist critical theory into grounded posthumanist research. Environmentally-attuned epistemologies hold space for notions of deep time, vastness, and what it means to be alive in ways that challenge and disrupt inherited humanist paradigms. The practice of environmental ethnography requires stepping outside of ourselves in uncomfortable ways, beyond our bias toward the familiar scales of time, size, and sentience.

At its core, environmental ethnography invites researchers to become more geographical—better attuned to contingencies and connections that structure the relationships between humans and nonhumans. "Formulations of living space," writes Maan Barua, "enable more-than-human geographers to look to their own tradition for thinking about the cartographies of nonhuman life" (Barua, 2018: 10) In this sense, environmental ethnography offers a toolkit for scholarship to become more-than-multispecies, and in the process, more accountable to the land beneath our feet. Indeed, if there were a *sine qua non* of environmental ethnography, it might be the awareness of and appreciation for the power and potential of space. Through this practice, geographers offer a unique contribution the boisterous field of more-than-human research.

As posthuman and environmental scholarship continues to advance, researchers should embrace these contingencies, in the same way we embrace the heterogeneity of our human research participants. This doesn't mean that scholarship should provide a role for every human and non-human participant. Some tunes are best performed by a string quartet rather than an orchestra. But a string quartet needs a place to perform, whether it be a concert hall or a living room. It needs instruments to play, and ears to listen. Thinking with environments asks us to attend to the background and the protagonist at the same time. Honouring the uniqueness of place keeps our research (and our research subjects) grounded in *habitat*. In these more-than-

human and more-than-multispecies communities, that grounding gives us someplace to call home.

5. Capacity Sharing and the Perils of Micropolitics

Climate adaptation for Indigenous communities is not as simple as making good policy; it is equally about how policy is implemented and how collaboration unfolds between Indigenous stakeholders and non-Indigenous governments. For several decades, experts have documented a consistent pattern of failures, particularly by colonial governments, in effectively managing adaptation challenges. These obstacles are sometimes misrepresented as policy failures. While poor policy is often involved in these poor outcomes, this chapter highlights a set of barriers to successful collaboration that are not merely policy issues, but rather what I term *micropolitical* issues; that is, they pertain to the *conduct* of government rather than statutory or regulatory policies. Unaddressed, these micropolitical issues create obstacles to Indigenous climate sovereignty. This chapter explores these issues in a case study drawn from Typhoon Merbok in 2022, which struck Western Alaska, and is empirically grounded in a series of interviews and participant observation with experts, elders, elected officials, and Tribal staff. It challenges the framework of "capacity building" and instead proposes a concept of "capacity sharing" as a more useful and decolonial approach to assisting Indigenous communities. This chapter concludes with several concrete recommendations to improve the practice of domestic diplomacy between Indigenous governments and settler states.

Introduction

The World Bank estimates that as many as 216 million people in vulnerable regions will be internally displaced by climate-related events by 2050 (Clement et al., 2021). Global climate adaptation costs are expected to reach US$160-340 billion annually by 2030 (United Nations Environment Programme, 2022). The efficient and equitable allocation of resources to climate-vulnerable communities poses an urgent task for scholars, policymakers, practitioners, and local leaders. This challenge is particularly acute in jurisdictions where the needs of disenfranchised communities may be chronically unmet or underrepresented. The scale and severity of this multi-faceted problem require thoughtful coordination among governments and NGOs to support community-scale adaptation while minimising suffering and loss of

autonomy. This is particularly true for Indigenous communities, whose ongoing battles for self-determination are doubly threatened, as both environmental change and adaptation (e.g., forced relocation) can undermine sovereignty.

Climate change, with its dynamic hazard landscape, poses a set of unique challenges for disaster response and hazard mitigation (Wilby and Keenan, 2012). Many well-intentioned climate adaptation efforts fall short of their goals, often due to a combination of poor program design, ineffective goal-setting, and fraught power dynamics (Bronen and Chapin, 2013; Jantarasami et al., 2018; Murray, 2019). As a result, many governments and institutions are developing novel legal, bureaucratic, and technical frameworks for adaptation and resilience for threatened communities. The past decade has seen a proliferation of such strategies and policies to improve climate adaptation and reduce maladaptation (Barnett and O'Neill, 2010; IPCC, 2023; Ulibarri et al., 2022). These new tools target diverse social and political landscapes, from small island nations (Mcleod et al., 2019) to large cities (Anguelovski et al., 2014). Given the breadth of human societies and the myriad manifestations of climate change hazards, strategies that work well in one context are not necessarily well-suited to another.

In this chapter, I introduce the concept (and term) *micropolitics* to draw attention to a category of procedural failures in climate adaptation that are not policy failures *per se*, but failures in the implementation of these policies, particularly in cross-cultural or (post)colonial settings. Why a new term? Because referring to "the day-to-day conduct of colonial governments" is a mouthful, and misses the *politics*—i.e., power—implicated in this conduct.

Micropolitical failures often arise in mundane issues that are overlooked in the high-level design of the policies in question. They are adjacent to, but separate from, issues of policy, goodwill, resource scarcity, or technical possibility. Micropolitics are not *micro* because they are small or unimportant, but rather because they are fine-grained and therefore easily overlooked, particularly by high-level government officials. Resolving micropolitical issues requires paying attention to the lived experiences of threatened communities, the dynamics that structure their interaction with colonial governments, and the everyday conduct of government offices and their employees.

In the existing academic and government literature, frequently proposed interventions to improve the delivery of environmental assistance are well-informed. But these recommendations sometimes fall short of engaging the more mundane and micropolitical barriers to effective collaboration with Indigenous communities. Issues that seem distant from federal offices in Washington, DC, can pose significant challenges in rural Alaska. In the

specific context of climate adaptation, micropolitical issues include (but are hardly limited to) substandard communication between communities and governments (Marino, 2015); failure to incorporate systems of traditional knowledge and governance into adaptation plans (Raymond-Yakoubian et al., 2017); setting unrealistic expectations for small communities' technical capacity (Minnes and Vodden, 2017); failure to build trust (Whyte, 2020); and ignorance of historical contexts that necessitate an intersectional approach to adaptation planning (Kashwan and Ribot, 2021; Marino, 2012; Marter-Kenyon, 2020; Whyte, 2018). Effectively assisting with climate adaptation—and indeed, any issue—in rural and Indigenous communities requires attending to these place-based and culturally-specific dimensions, and the micropolitics that arise between them. These findings here echo other scholarship in colonised spaces, both within the Arctic and well beyond, including in Sweden (Furberg et al., 2011), Puerto Rico (Murray, 2019), Arctic Alaska (Shearer, 2012), Aboriginal Australia (Petheram et al., 2010), and Chile (Carmona, 2022), to name a few.

This chapter explores the micropolitics of climate adaptation and the related issues of "capacity" as a frame that exerts potent political power. It begins with a background on climate adaptation challenges faced by Indigenous governments. This is followed by an overview of micropolitics and capacity, noting how they frustrate the process of climate adaptation. A case study then investigates Tribal-federal cooperation in response to post-tropical Typhoon Merbok, a record-breaking storm in September 2022 that caused major damage to dozens of Western Alaska Native villages. I conclude with a set of recommendations for specific micropolitical issues in climate adaptation. These recommendations will have varying degrees of transferability to other geographic and political contexts.

The Capacity Trap

Rural Alaska is a prime example of a setting where rural and Indigenous communities face urgent climate adaptation needs but have struggled to secure funding for necessary infrastructure-scale projects (US Government Accountability Office, 2022). Dozens of Alaska Native villages—which are also sovereign Tribal Nations (Case and Voluck, 2012)— face severe threats from erosion, sea ice loss, worsening storms, changes to subsistence food resources, and flooding. In several instances, these drivers have led entire communities to begin the process of relocating to higher ground, in some cases several kilometres from their current locations (Bronen and Chapin, 2013). The cost of these prospective relocations often exceeds

US$100 million for each village; most of this must be raised from the US federal government through a series of grants.

These funding opportunities routinely require that assessors of grant applications evaluate an applicant's "capacity" to deliver on the proposed project. Most Alaska Native villages have fewer than 1,000 residents and are disconnected from the North American road system. Internet access is unreliable and mail is often delayed by weeks. Although residents possess rich bodies of knowledge (traditional, practical, and experiential), Western educational attainment is often well below the national average. In order to become eligible for funding, these communities are directed to perform complex technical planning tasks for infrastructure-scale projects, e.g., designing a seawall or conducting benefit-cost analyses. What emerges in the space between the demands of the federal government in Washington, D.C., and the ability of remote, Indigenous governments is appropriately called a capacity gap (Minnes and Vodden, 2017).

In many settings, the conventional response to these capacity gaps is to promote capacity building, by "equipping individuals, communities, and institutions with the knowledge and ability to adapt to climate change" (Alpízar et al., 2019: 587). An evaluation of the United Nations-affiliated Adaptation Fund found that out of 73 funded climate adaptation projects, 67 referenced capacity building, suggesting the near-universal adoption of the paradigm (Alpízar et al., 2019). But by advocating for interventions targeting communities vulnerable to climate hazards, capacity building problematically locates the source of procedural dysfunction as existing primarily within these communities and their governments. In doing so, it may overlook systemic hurdles (e.g., cost-intensive and onerous technical planning requirements) that originate in programs designed and administered in faraway capital cities. This is especially true for government interventions that may employ a one-size-fits-all approach to grantmaking. In many instances, the paradigmatic dominance of capacity building seems to propose that rural and/or Indigenous governments must be improved in order to end their own disenfranchisement from badly-needed sources of public assistance (Kashwan and Ribot, 2021).

When capacity gaps arise, NGOs and for-profit companies (e.g., civil engineering firms) are often called upon to help fill capacity gaps or conduct capacity-building exercises—despite evidence indicating the limited efficacy of these interventions (Alpízar et al., 2019). In the process, these groups often attempt to translate community needs into the prescriptive language of bureaucracy, e.g., by producing long reports with economic and geotechnical

analyses. In the process, rural and/or Indigenous communities' own voices may become attenuated, which can frustrate efforts to build internal and external consensus.(Marino, 2012) The requirement to reframe urgent local priorities into technical language may further reproduce colonial power structures by restricting how marginalised voices are admitted into public policy discourse. It may also undermine local sovereignty by assimilating local institutions into regional or colonial governance structures (Coulthard, 2014). In these ways, the translation of requests for aid into the programmatic language of bureaucracy can, paradoxically, increase vulnerability and result in maladaptation (Barnett and O'Neill, 2010; Marino, 2012).

Bureaucracy and Modernity

It bears mentioning that "bureaucracy" itself is an topic (and a term) heavy with symbolism and pejorative meaning (Herzfeld, 1992), and as such deserves some consideration. For Max Weber, the development of bureaucracy is inseparable from the "modern state," whereby "the increasing demands for administration rest on the increasing complexity of civilization and push towards bureaucratization" (2009: 212). Nor, in Weber's eyes, is this necessarily a bad thing. Bureaucracy supplanted a variety of systems—feudal, honorific, ecclesiastic, and patrimonial—and usually resulted in a gain of efficiency (and arguably justice) of such a degree that Weber compares it to the advent of industrial machinery. And like a machine, Weber's ideal bureaucracy is anchored in a modernist fascination with the "'calculability' of results":

> [Bureaucracy's] specific nature, which is welcomed by capitalism, develops the more perfectly the more the bureaucracy is "dehumanized," the more completely it succeeds in eliminating from official business love, hatred, and all purely personal, irrational, and emotional elements which escape calculation. (2009: 215–216)

But this dehumanisation is hardly without consequences. "To the extent that bureaucracy is efficient, it is also inhuman," observes Michael Herzfeld (1992: 67). But Herzfeld identifies a persistent humanity in this inhuman system, namely that "the roots of *official* intolerance and indifference lie in popular attitudes" (1992: 49, my emphasis)—i.e., the capacity of bureaucracy to disregard certain lives while attending to others reflects the collective beliefs within a society about *who* belongs and who does not.

Perhaps no author better demonstrates this capacity of bureaucracies to abandon lives than Hannah Arendt. In her profile of Adolf Eichmann, an ambitious bureaucratic functionary

who arranged the transportation of European Jews to death camps, Arendt illustrates the capacity of bureaucracies to rend societies apart while permitting decision-makers to keep their hands relatively clean. She writes, "What for Eichmann was a job, with its daily routine, its ups and downs, was for the Jews quite literally the end of the world" (1963: 153). It is particularly telling that one of Arendt's central convictions is that the "crime of genocide" and the "crime of murder" are not in any equivalent; in her eyes, Nazi "state-employed mass murderers violated the order of mankind," rather than "the law of the community" (1963: 272). This violation—utterly dispassionate mass murder—was only made possible through bureaucracy: an abdication of moral judgment and social responsibility. (At his trial, Eichmann recounted being shown a gas chamber in Poland: "For me, too, this was monstrous," he told the court, evidently convinced that he too was somehow a victim of the genocide. "I am not so tough as to be able to endure something of this sort without any reaction" (Arendt, 1963: 88).

This "inhumanity" of bureaucratic systems has been echoed in other sociological contexts. Carol Cohn, for example, in her study of U.S. nuclear war strategists, found that similar language games—"clean bombs" and "collateral damage" (1987: 691) — were at work in the Department of Defense as in the Third Reich, where mass murder was also thinly veiled by a set of euphemisms, such as "Final Solution," "evacuation" (*Aussiedlung*), or "special treatment" (*Sonderbehandlung*) (Arendt, 1963). Cohn writes that these language games "are part of what makes it possible to be radically removed from the reality of what one is talking about and from the realities one is creating through the discourse" (1987: 715).

These capacities in modern states—genocidal or otherwise—demonstrate the most extreme abilities for bureaucracies to participate in acts of murder or abandonment. But my focus here is on the more banal, chronic externalities of these sociopolitical structures. David Graeber, who refers to neoliberalism itself as the "bureaucratization of the world," identifies a governance ethic fracturing along class lines, by placing "simultaneous emphases on personal self-realization for the affluent and 'personal responsibility' for the poor" (Graeber, 2009: 83). I would argue that Graeber's thesis could also be reformulated along colonial lines, resulting in an ethic emphasizing personal self-realization for the settlers and personal responsibility for the Indigenous. Even in this bureaucratic context, there is a sort of *marketization* of public assistance, mediated through the putative meritocracy of grant applications. In the same way that neoliberalism hails the market as the arbiter of which firms succeed or fail, bureaucracy here becomes its own marketplace, in which communities compete with one another for scarce resources. In this case, the government itself becomes the consumer.

A Historical Perspective

A key problem with the paradigm of capacity building is its capacity to disregard how historical and contemporary forces shape power structures and climate vulnerability in the Anthropocene. Public policy discourse on climate change often ignores how inequality and marginalisation gave rise to present-day conditions of climate risk. "The weather can only launch crises when those in its path are already exposed and precarious," write Kashwan and Ribot (2021: 326). A drought in the Horn of Africa will have dramatically different social and humanitarian consequences than the same drought in the Southwestern United States.

In the case of many Alaska Native villages, these environmental hazards are inextricably linked to Alaska's colonial history. Until the late 19th or early 20th centuries, many contemporary village sites were inhabited only seasonally (Berardi, 1999). When the US colonial government tightened its grip on Alaska at the turn of the 20th century, it forced Alaska Natives to remain in one place for the majority of each year by building schools and mandating that children attend them (Berardi, 1999; Hirshberg, 2008). These schools, along with churches and other buildings, were erected hastily by visiting white workers, most of whom arrived by boat and began construction close to the landing site for convenience. As a result, many Alaska Native villages today are located on barrier islands, sand spits, or immediately astride rivers (Marino, 2012; Marino et al., 2022). Traditional technologies of climate adaptation and mobility were replaced over a short period of generations by a more sedentary existence. (Many Alaska Natives still practice some seasonal mobility, for example, by visiting "fish camp" in the summer, away from village centres; Berardi, 1999; Deur et al., 2018; Hirshberg, 2008; N. Johnson et al., 2021).

From the outset, environmental hazards posed an existential threat to many of these communities. The Iñupiat villages of Shaktoolik and Point Hope relocated to higher ground in 1975 and 1977, respectively (Johnson and Gray, 2014; Sakakibara, 2008); both villages are now faced with the prospect of relocating for a second time (GAO 2009). Across the state, Alaska Native villages were made vulnerable by historical processes, recently exacerbated by climatic factors (Kashwan and Ribot, 2021). A report by the US Government Accountability Office (GAO), a public agency and self-described watchdog of the federal government, succinctly summarises this history: "In many cases, Native villages occupy their current precarious locations because the federal government built schools in what were seasonal

encampments and mandated that Alaska Native children attend those schools" (US GAO, 2022: 7).

In the same way that climate vulnerability is a product of history, the relative lack of Western technical and bureaucratic capacity among some Indigenous and rural communities is also the result of a history of disenfranchisement and marginalisation. In some instances, the consequences of colonialism and structural racism—including a lack of high-quality education and public services—limit local technical capacity to design and implement infrastructural responses to climatic hazards.

When climate change discourse overlooks these historical and ongoing factors, vulnerability is misinterpreted as an outcome of geographical happenstance and poor community organisation (Kashwan and Ribot, 2021). This inattention to history and power allows two myths to endure: first, that climate risk is randomly distributed; and second, that capacity reflects how much a community has prioritised adaptation efforts relative to other communities. These myths uphold the putative meritocracy of public climate adaptation grantmaking, which justifies the use of capacity as a metric to prioritise certain communities for funding and deprioritise others.

What Is Capacity?

Capacity, in the sense used here, is not strictly a virtue in its own right. Indigenous communities are not better or worse, *prima facie*, for being able to perform various administrative tasks as prescribed by a settler state. The most important question for would-be capacity-builders is: to what end is capacity built? In the case of Indigenous communities, a reasonable starting point could be that capacity is useful insofar as it advances Indigenous sovereignty, self-determination, and autonomy (Cornell and Kalt, 2010; Kalt, 2003)—but capacity does not always seem aligned with those goals.

Capacity building has its discursive roots in the Global South (Phillips and Ilcan, 2004), where key institutions, like local and national governments, cannot or will not provide assistance to communities in need. In some instances, this may be the result of an impoverished or failed state; in others, the result of oppression or neglect; or the outcome of neoliberal frameworks (e.g., austerity politics) that starve larger governments' ability to render aid.

Capacity may take many forms. In this chapter, I follow the narrow definition offered by Rawlyk and Patrick: "the ability, or capability, of a local community to meet regulations, policies, or standards" (2013: 22). The concept of capacity arises in part out of a critique of

other attempts at universalist measurements of human well-being. Amartya Sen reasoned that, due to "the fundamental diversity of human beings" (1979: 202), classical utilitarian frameworks of distributive justice are basically unreliable. Because people are so different in our preferences (in the broadest possible sense), it makes little sense to construct ideas of equality or justice in terms of utility. What is useful to me may be useless to someone else. Instead, Sen argues for a type of equality he terms "basic capability equality"—that is, "a person being able to do certain basic things" (1979: 218). Sen cites as examples freedom of movement, the ability to meet nutritional needs, to have shelter, and to participate in social life. Sen would later describe this as "the expansion of human freedom to live the kind of lives that people have reason to value" (1997: 1960).

Here, a tension emerges. Sen's critique objects to "human capital" functioning as the lowest common denominator for the measurement of human well-being: "Human beings are not merely the means of production (even though they excel in that capacity), but also the end of the exercise" (1997: 1960). Sen's approach, in certain ways, is searching for something approaching, but not quite identical to, freedom on an individual level. And this is where the issue gets murky—because capability theory, and the related discourse of capacity, begin to dovetail awkwardly with neoliberal ideology. If that sounds far-fetched, recall that a hallmark of neoliberalism is the dissolution of "the distinction between economy and society" (Shamir, 2008: 3). Whereas the late nineteenth and early twentieth centuries saw an increasingly interventionist role for Global Northern governments "by means of market regulation and the direct provision of social services" (Shamir, 2008: 5), the second half of the twentieth century saw a gradual—and then accelerating—withdrawal of those same interventions, often legitimised by quasi-naturalistic narratives that implied an elegance to decentralised democracy and decision-making. A logic of abandonment can uncomfortably occupy the different side of the same coin as the logic of self-determination.

This leads to a particular problematic for marginalised communities that, in the broadest sense of the word, are disenfranchised whilst losing their ability to make claims upon governments for assistance. "The confusion," write Ferguson and Gupta, "engendered by bundling these distinct propositions together is in fact productive, in the Foucauldian sense, in that it constructs a common-sense state that simply is 'up there' somewhere, operating at a 'higher level'" (2002: 983). When applied to capacity building, one sees how a theory of equality borne out of a commitment to empowerment has in certain respects yielded the opposite results when scaled up to the level of community or local government. "Capacity

building," writes one critic, "originally drew on a generally left-leaning range of intellectual and political traditions, but is today commonly used to further a neo-liberal 'pull-yourself-up-by-your-bootstraps' kind of economic and political agenda" (Eade, 2007: 632). Here, we see Sen's individual-focused capability theory encountering political problems when co-opted by a neoliberal ideology that is sceptical of rendering assistance in the first instance.

Moreover, capacity building in the context of Indigenous communities tends to imply a collaborative paradigm between settler states and colonised communities—rather than a confrontational paradigm. Indeed, the 20th century saw a dramatic transition,

> from a structure that was once primarily reinforced by policies, techniques, and ideologies explicitly oriented around the genocidal exclusion/assimilation double [practice], to one that is now reproduced through a seemingly more conciliatory set of discourses and institutional practices that emphasize [Indigenous] *recognition* and *accommodation*. (Coulthard, 2014: 6)

This transformation has led to an insidious twist in the anticolonial struggle. Wholly unable to express it as well in my own words, I quote Frantz Fanon at length, who, writing in the 1950s, contrasts the insidiousness of French colonialism with the overt violence of the Black American struggle for civil rights:

> The former slave needs a challenge to his humanity, he wants a conflict, a riot. But it is too late: The French Negro is doomed to bite himself and just to bite. I say "the French Negro," for the American Negro is cast in a different play. In the United States, the Negro battles and is battled. There are laws that, little by little, are invalidated under the Constitution. There are other laws that forbid certain forms of discrimination. And we can be sure that nothing is going to be given free.
>
> There is war, there are defeats, truces, victories.
>
> "The twelve million black voices" [in the United States] howled against the curtain of the sky. Torn from end to end, marked with the gashes of teeth biting into the belly of interdiction, the curtain fell like a burst balloon.
>
> On the field of battle, its four corners marked by the scores of Negroes hanged by their testicles, a monument is slowly being built that promises to be majestic. (1952: 173–172)

Unlike for Black Americans, as the 19th century faded, the "field of battle" for Indigenous North Americans gradually faded as well. The bloody American Indian Wars ended. During the 20th century, which saw a ferocious fight for civil rights led by African American activists, the battles waged by American Indians were relatively quieter. This may have been related on some level to the gentrification of American cities and the diminishing visibility of urban

Indigenous Americans One notable exception was the 19-month-long occupation of Alcatraz Island led by the American Indian Movement from 1969-1971. The 2016-17 protests of the Dakota Access Pipeline would later echo that extraordinary political moment (Beisaw and Olin, 2020).

But these exceptional flare-ups of political confrontation—Fanon's "conflict" and "riot"—were less common, or at least less prominent in the national narrative. I digress here to note something that Fanon does not. Although Fanon makes crucial comparisons between anti-Black racism and antisemitism, he does not as explicitly contrast anti-Black racism and settler colonialism as practised in the Americas. It is worth addressing this for a moment. I turn to Patrick Wolfe's observation that, while the United States undertook extreme and appalling efforts to assimilate Native Americans, it never attempted the same sort of assimilationist policies with respect to Black Americans. Of particular interest is how race is differentially constructed for each of these two communities. Black Americans are subjected to an implicit "one-drop rule," wherein

> any amount of African ancestry, no matter how remote, and regardless of phenotypical appearance, makes a person Black. For Indians, in stark contrast, non-Indian ancestry compromised their indigeneity, producing 'half-breeds,' a regime that persists in the form of blood quantum regulations. (Wolfe, 2006: 388)

In the first decades of the twentieth century, Southern state legislatures were codifying the one-drop rule in segregationist Jim Crow laws at the same time that the Alaskan government was charged with establishing schools for "white and colored children and children of mixed blood who lead a civilized life" (Case and Voluck, 2012: 204; Sharfstein, 2007). In the American settler colonial construction of race, there was something to be salvaged—or absorbed—in Native Americans. That is, a Native American's whiteness was not strictly biologically coded but highly contingent upon perceptions of cultural assimilation. The goal—and its praxis—was more assimilationist than segregationist.

Why? Patrick Wolfe suggests that, "As opposed to enslaved people, whose reproduction augmented their owners' wealth, Indigenous people obstructed settlers' access to land, so their increase was counterproductive" (2006: 388) Wolfe refers to this as "the logic of elimination." Another theory, hardly mutually exclusive with Wolfe's could be adapted from Fanon's analysis of antisemitism versus anti-Black racism:

> The Jew is attacked in his religious identity, in his history, in his race, in his relations with his ancestors and with his posterity… But it is in his corporeality that the Negro

> is attached. It is as a concrete personality that he is lynched. It is as an actual being that he is a threat" (1952: 162–163)

The logic of antisemitism, if we follow Fanon, allows for a possibility of assimilation—for one can renounce her religion, history, race, and ancestry. But the renunciation of one's body is a strictly more unlikely proposition. In this particular way—and I stress the narrowness of my reading here—the genocide waged against Native Americans (in the US) had more in common with European antisemitism than with US anti-Black racism.

If we follow this conjecture, it makes sense that North American settler-colonial states did not wage open battle in the streets with Indigenous Peoples, but rather attempted to smother them. Glen Coulthard, writing of Canada: "Colonial relations of power are no longer reproduced primarily through overtly coercive means, but rather through the asymmetrical exchange of mediated forms of state recognition and accommodation" (2014: 15). It is within that context that Indigenous polities struggle *to be heard, to make demands upon colonial structures*—which I contend suffices as a working definition of *capacity*. In this way, American settler colonialism and the frame of capacity exert a strong gravitational pull upon Indigenous governments, who must fight to be *heard* rather than simply *fight* in the sort of liberatory struggle that Fanon viewed as essential to overcoming a deeper "constellation of delirium" (1952: 60) that he believed haunts colonised peoples. In the simplest possible terms, the neoliberal and colonial framework of capacity leaves Tribes in the supplicant position of making *requests* rather than *demands*.

Case Study: Typhoon Merbok

In September 2022, a typhoon spun out of the tropical Pacific Ocean and barrelled toward the overheated Bering Sea, where unusually warm surface water temperatures sustained the cyclone as it travelled north, eventually crossing the Arctic Circle (see Figure 7). Weather instruments logged the lowest atmospheric pressure ever recorded in the Bering Sea in September. Across Western Alaska, a severe storm surge caused flooding, erosion, and

widespread property damage in more than 35 communities (Pacific Coastal and Marine Science Center, 2022).

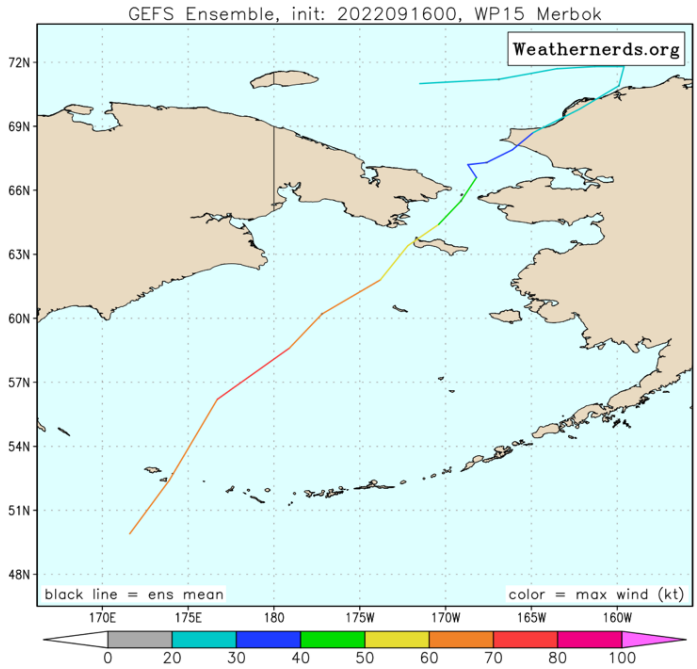

Figure 7: Map of Typhoon Merbok, September 2022 (Weathernerds, 2024)

Within days of the storm, political dignitaries descended upon the region, travelling by military helicopter and touring damaged towns. This included Alaska's at-large congresswoman, Democrat Mary Peltola, the state's senior senator, Republican Lisa Murkowski, and the head of FEMA. At a town hall in the regional hub of Nome, they took the stage and promised a swift response, urging residents to apply for federal disaster relief aid.

But their words of encouragement were tempered with caution. The head of FEMA, Deanna Criswell, explained, "We do want to help; our processes *can* be complicated." Climate change made its way into the conversation, and Senator Murkowski offered a candid answer: "We've got a lot of planning work to do. It is worth noting that on the federal side, we're starting to think more proactively about how to build toward resilience." This sentiment may have landed poorly with Tribal leaders, who have been working to anticipate environmental hazards for decades, often with a multi-generational perspective on regional and local changes (Rock, 2023).

The town hall lasted less than an hour, and the DC entourage left immediately thereafter. The region's residents began trying to navigate a maze of relief programs. The government and agencies these leaders represented—and the rank-and-file employees with the capacity to issue financial compensation for damaged property—proved much harder to come

by than the media-facing politicos. In the immediate aftermath of Typhoon Merbok, the federal government made efforts to help Western Alaskans apply for the aid the elected officials had mentioned— a process that proved to be rife with micropolitical complications.

FEMA commissioned a translation firm to create a brochure with instructions on how to apply for aid into Iñupiaq and Central Yup'ik, two Alaska Native languages spoken across the area damaged by Merbok (Figure 8). The Yup'ik translations were unintelligible to locals. According to an expert at the University of Alaska Fairbanks' Alaska Native Languages Center, a line of text meant to refer to the Small Business Association translated as: "That one said that I should draw a line on the ice when he gets close" (Schwing, 2023a). The expert hypothesised

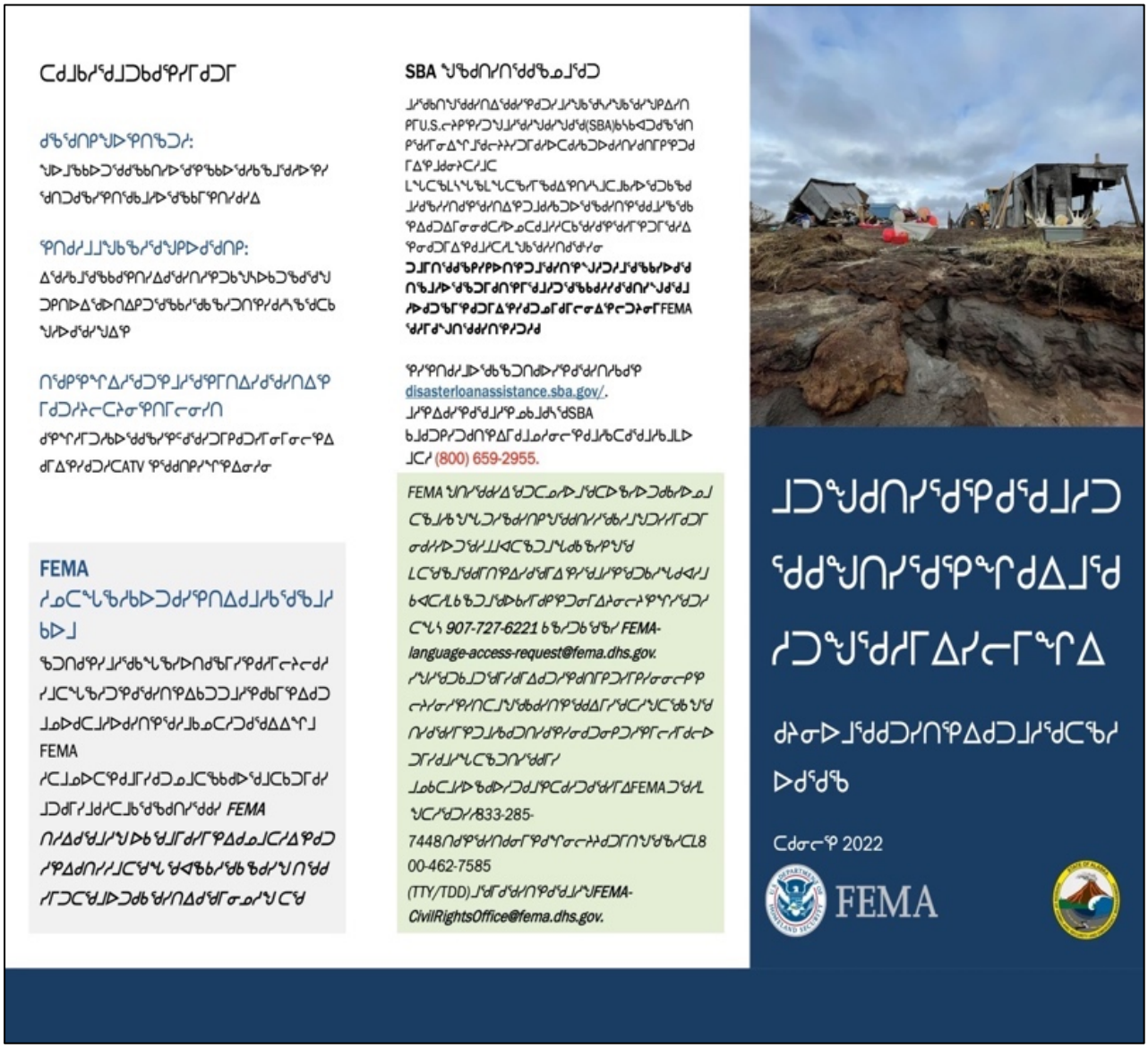

Figure 8: A FEMA brochure printed in the Inuktitut alphabet following Typhoon Merbok. Inuktitut is not spoken in Alaska. Source: Schwing, 2023a.

that the translator "just lifted full phrases from a compilation of language and folklore from Far East Russia." That was the Yup'ik version. Its Iñupiaq counterpart was printed in Inuktitut, an alphabet of syllabic characters used by some Inuit in Canada, not in the US. Iñupiaq, by contrast, uses the Latin alphabet. To Iñupiaq speakers in Alaska, the symbols were as meaningless as they were to English speakers in the Lower 48.

The other challenges were more mundane, although arguably posed greater hurdles. The regional newspaper wrote a 2,000-word article attempting to explain the kaleidoscope of federal aid programs ("Even now, two months after ex-Typhoon Merbok struck western Alaska, the process of applying for disaster assistance left many confused"; Loewi, 2022).

There is Individual Assistance and Public Assistance, which require separate application processes through FEMA. There are state programs, but applicants will only be considered for those after running the gauntlet of FEMA programs. But a spokesperson for the SBA told the *Nome Nugget*, it is "vitally important" for applicants to apply to both state and FEMA programs. The SBA offers loans, not aid, which took many in the region by surprise. Even the FEMA webpage confusingly advised, "You are not required to take out a loan, but failure to fill out the [loan] application may prevent you from receiving certain types of FEMA funding" (quoted in Loewi, 2022). Many would-be applicants were confused—would applying for assistance put them into debt? (The answer: no, but debt-free assistance is only offered to applicants who are rejected from an SBA loan application.)

There are income thresholds, automatic referrals, appeals processes, resubmissions, and a host of eligibility requirements. Success within this system requires a peculiar combination of legal literacy, tenacity, spare time, self-advocacy, and optimism. Many would-be applicants "are deterred by the amount of paperwork or fall through the cracks" (Loewi, 2022).

In a particularly strange turn, on February 1, 2023, FEMA announced on Twitter and in a press release that it was reopening the aid application that had closed in December —the new deadline was three days later, on February 4 (FEMA, 2023; FEMA Region 10, 2023). It was later extended to February 6 (FEMA, 2023). On the morning of February 6, FEMA posted on Twitter, "Those submitting late applications will be asked to provide a letter explaining why they were unable to apply during the application period" (FEMA Region 10, 2023). Practical questions swirl around this sort of agency protocol: how were private citizens or Tribal public officials meant to know about the extension? And why did the window between announcing the reopening and the subsequent closing last only six days, of which only four were business days? These breakdowns in effective communication and coordination between FEMA and Alaska Native villages have been broadly documented elsewhere (Pennington, 2023).

"It was all frustrating because there was just no uniform guidance or direct resource to understand" the aid programs, a village environmental coordinator explained. Her community had suffered substantial losses due to Merbok but ultimately did not apply for aid. The process was too cumbersome and opaque. Instead, they applied for relief from the regional nonprofit Tribal consortium, Kawerak. That application was a two-page PDF file, which could be submitted by email, fax, or hardcopy. (In rural Alaska, fax machines are helpful alternatives when poor internet connections interfere with email.) The phone number listed for those seeking assistance with the application lists the names of two designated contacts—indicating

accountability to specific people, rather than an institution. Whereas the FEMA system was complicated and anonymous, the regional nonprofit built a system that was relatively straightforward and personal, with clearly accountable representatives who are also members of the relatively small Norton Sound community.

Even if the federal bureaucracy surrounding disaster aid were more navigable to those without specialist training, colonial principles remain inscribed in the rules governing relief allocation. For instance, FEMA does not provide aid for damages sustained by "non-primary residences" (Loewi, 2022; Pennington, 2023: 247–248); this includes the cabins at subsistence fish camps that are commonplace across Western Alaska. Snowmobiles and all-terrain vehicles, which are the primary means of transportation in most villages in the region, are classified as "recreational vehicles," and are also not eligible for compensation. One village leader explained in an interview that applicants faced a significant hurdle when he was told that their applications could not be processed without house numbers. In a village of fewer than 300 people, where mail is only collected from the village post office, house numbers were never necessary.

One Tribal president in the region explained: "You have to go through the right formalities to get the things addressed. You have to fill out a certain form. Things like that. It just really doesn't make sense… all we're really capable of doing right here is hands-on, trying to get things taken care of in the spur of the moment." A president of a separate Tribal government found it frustrating that government employees seemed ignorant of the importance of subsistence equipment: "One of the things that is really difficult to convey is the loss of food security."

Across the region, the prospects of engaging productively with FEMA seemed dim. Tribal leaders, with limited capacity to track the complicated and lawyerly processes for acquiring aid, were more apt to fall back into patterns of self-sufficiency, sceptical that the federal government's systems—which have historically been hostile to Indigenous livelihoods (Case and Voluck, 2012; Whyte, 2020)—had meaningfully changed in ways that would make the difficult process of engagement worthwhile (see Figure 9)

Figure 9: Community members moving part of a house that was displaced from its foundations during Typhoon Merbok.

At least one village in the region reported a different experience. Following the typhoon, several FEMA representatives were dispatched to the village, where they spent up to a week helping residents apply for aid and address a number of hurdles, such as the lack of house numbers or physical titles to homes that were passed down through generations. Tribal leaders in the village reported that this was helpful, even though the FEMA employees were powerless to address certain barriers, such as the inability to deliver compensation for damage at fish camps. In interviews across the region, several Tribal leaders and community members hypothesised that this village's experience was influenced by the simple fact one of its residents is a lawmaker in the state legislature.

The problematic response to Typhoon Merbok illustrates how federal protocols are failing Tribal governments when environmental pressures are most dire. But the cause does not appear to be a lack of action or ambition at the highest levels of government. The state's most senior elected officials demonstrated a keen awareness of the scope of the problems. "Is this

the beginning of a new normal?" mused Senator Murkowski from the lectern of the town hall in Nome. "And if so, how do we prepare?"

Rather, the problems in the ineffective response to Merbok lay in the connective tissue between political leadership and communities: the complex, mundane, and often-overlooked bureaucratic structures tasked with delivering on policy directives. As exemplified by Merbok, these structures can derail efforts to deliver aid to vulnerable communities, and in the process, continue a legacy of disenfranchisement.

Micropolitics and the Limits of Capacity: A Vignette

I am hunched over a telephone handset with the mayor of Pastolik, three city council members, and the city clerk. We are seated around a small conference table with a telephone handset in the centre. The voice on the phone is scratchy but audible. "The next question is: does Pastolik have a professional staff in sufficient numbers and capable of planning, and implementing policies and plans that are related to this recovery process?"

The Native Village of Pastolik is built on a skinny sandbar, flanked on one side by a river and on the other by the North Bering Sea. Like Sinuk, it is accessible only by airplane, although more intrepid travellers will occasionally visit by boat, snowmobile, or dogsled. The questions go on. "Ok, does Pastolik have a time and attendance system? Where you keep track of, like, timesheets and things like that?"

It's been six months since Typhoon Merbok slammed into Pastolik. After half a year of dogged efforts, this is the first time that the mayor and the city council have managed to speak on the phone with the Federal Emergency Management Agency and relevant liaisons from the state. "Do you have an existing record-keeping management system? Like, do you keep records on paper, or do you have something like QuickBooks, or—how do you organise your paperwork?"

The storm caused unprecedented damage to the village's coastline. Over the course of a fearful night, residents evacuated their homes and huddled in the school cafeteria—the designated evacuation site—as the ocean bowled driftwood tree trunks into the building's corrugated steel siding. By 6:00 AM, the ocean had risen by four metres feet, pulled skywards by the cyclone's record-breaking low pressure. "Do you have a cash receipt system in place that records incoming funding, and how it's received, and what it can be used for?"

Ultimately, the village was mostly spared, but only because the winds that early morning blew along the coastline. Had they instead come across the open waters, the resulting

waves could have swept away most of Pastolik. “And do you have a trained bookkeeper, or do you involve an outside accounting firm?”

On this day in February, the sea is frozen solid. Once it melts in summer, the village will be utterly exposed until the berm is rebuilt. But the village doesn’t have the money to finance the reconstruction. “We will need copies of the different policies and procedures that you generally work with, eventually—that’ll be on a list, so keep that in mind.”

The voice is chipper, but *keep that in mind* comes across with a dull glaze of condescension, with the faintest suggestion of a threat. On the wall: a full-size American flag; an aerial photo labelled, “Pastolik Coastal Flood Map;” another map drawn by schoolchildren; and a spiral-bound book titled, *The Chair Recognizes: A Book of Parliamentary Procedure*, suspended by a thumbtack. “Do you keep maintenance records on your infrastructure? … Does the city keep records of that?”

The city office is one-half of a double-wide trailer. It has two workstations, two wall calendars, half a dozen filing cabinets, a mini-fridge, a coffee maker, a laminated poster with an overview of labour laws, and the sort of VHF radio used to communicate with boats. “Do you have a sufficient labour force capable and available to complete the projects you are interested in doing?”

This village was listed by the Federal government as among the most climate-vulnerable communities in all of Alaska. “Do you keep maintenance records on your infrastructure? So, when you do maintenance on any buildings, roads, bridges, that type of thing? Does the city keep records of that?”

I realise that I am the only person in the room who is surprised by what is unfolding. The mayor has been involved in Tribal government since he was a teenager. He gamely answers each question; his face betrays a mix of irritation and weariness. “So the next one is: Are you supported by a planning, finance administration and/or utility department in the city of Pastolik?”

Naturally, the question causes some confusion. The entire city government is sitting here today: the mayor, his three city councillors, and the city clerk who passes out a round of Pepsi. The interrogator is undeterred: “Are you *supported?* Like, do you have utility companies, planning, project management, finance administration?”

With the next question, the voice sounds suddenly pleased with herself: “I know the next answer: you *do* have seasonal issues, I’m assuming, with construction time-period. Generally speaking, the other areas have mentioned about a three-, maybe four-month period

when you can actually do construction on roads, *et cetera*. Is that correct for Pastolik as well?" The "other areas" are the dozens of villages in the region that also sustained major damage from Typhoon Merbok. The seasonal issues are due to the fact that the land is frozen solid for three-quarters of the year, and will not admit earthmoving equipment.

The mayor answers, "I would say yes, but with climate change and warming up we can actually work a little earlier and later."

"Well that will be helpful," says the voice, and then giggles. "Great—thank you."

A few more questions go by without incident. Then the voice introduces Monica, a representative from FEMA. A thick Southern drawl comes through the phone, garbled and nearly impossible to understand. I can only make out broken phrases: "damages"—"application"—"will be administered"—"computer program"—"if you aren't already familiar with it"—"although at that time"—"if you don't know already"—"face-to-face meeting, which I hope to do in the near future"—"guide you"—"consolidating."

The village leaders are craned forward over the handset, but the volume isn't the problem. Internet in Alaska Native villages is notoriously awful, and this call with FEMA was arranged on a web platform instead of on an old-school conference call line. We all squint and tilt our heads from side to side, straining to parse some meaning from this woman's heavily inflected, digitally attenuated voice. "Database"—"public assistance"—"requirements"—"it could take"—"that time period will be"—"dependent on you guys to provide the documentation."

Finally, I comprehend a series of sentences. Monica then announces that she has a survey of her own, which she will now administer to the village officials. She rattles off a preamble of jargon, but before she gets to her first question the mayor politely interjects, "You're a little harder to hear."

"Well, I'm having a little difficulty as well. I'll speak louder." Needless to say, the audio quality doesn't improve. The questions rattle off. As much as the broken audio permits, the mayor answers each one diligently, often dipping into an encyclopaedic history of every infrastructure project to take place in Pastolik over the past half-century. Then, for a few minutes, Monica becomes fixated on one question: will the damages from Typhoon Merbok exceed $1 million? The mayor admits he can't know—how could he?—but reckons it'll be higher than that.

"Would you say that your debris accumulation after the storm was significant, moderate, or [inaudible]?"

“Significant. It took the berm down. I mean, if we didn’t have that berm that we’ve worked on since 2014, I think we would have had a lot more damages of homes and other infrastructure in the village.” says the mayor. He closes his eyes when he speaks into the phone.

“It would’ve took us out,” adds a city council member, in a low voice. He’s wearing a camouflage down jacket and a Polaris ball cap.

“Yeah, it would’ve probably took us out,” says the mayor.

Monica says nothing.

Then, “So, as far as your debris, what kind did you have? I know you probably had driftwood. Did you have, um, trees or limbs or sand, or anything else besides driftwood?”

The mayor, heroically: “I would say maybe 95% driftwood and 5% sand.”

“Ok, that’s very good. Thank you for that estimate.” At this point, the conversation has been ongoing for over an hour.

“Do you have any idea of the approximate quantity of driftwood that you removed, or still remains to be removed?” It occurs to me that Monica may have just gotten off the phone with Ft. Lauderdale, Florida, and might be speaking to Charleston, South Carolina, after this. What does she imagine the seat of the Pastolik municipal government looks like? Then she asks her next question and I realise: she doesn’t imagine anything at all.

“Ok, I have another question: for any of this debris removal work, are you gonna have to be [inaudible] water to do remove of that?”

The mayor starts to ask a clarifying question, “Will we have to—”

“—a river, lake, or any other body of water?”

“Uh, no. This is just in front of the village on the beach side.”

Monica pauses. “Will any of that debris removal be within two hundred feet of any waterway, or body of water, or wetlands?”

Everyone in the room looks up from the phone, wondering how to answer. All of Pastolik is within two hundred feet of a body of water.

“I think we’re deemed all wetlands,” the mayor answers finally.

Monica moves on. The next subject is “ground disturbance,” then “emergency protective measures,” then, *did any of the emergency protective measures take place within two hundred feet of any body of water?*

A council member gives the mayor a brief reprieve, answering, “the water was just right there. We were just down to a little narrow strip of land during the storm.”

The entire scene grew more and more farcical, like an Alaska Native version of *Waiting for Godot*. Monica kept the questions coming—each one a novel permutation of *debris*, *ground disturbance*, *emergency protective measures*, *less than a million dollars*, and *within two hundred feet of any body of water*. Once in a while, she would add in a question about *endangered species*, evidently unaware that the Endangered Species Act contains a broad carve-out to protect Alaska Native subsistence rights (Case and Voluck, 2012).

"Then we move on to the next category which was the water and [inaudible] category. FEMA classifies this as your Category 3." The clerk tries in vain to increase the volume on the handset. It gives an angry triple-beep. After Category 3 comes Category G, and then, Monica announces that she is done. "Is there anything else that we haven't discussed here [inaudible] that FEMA needs to know about?"

Suddenly, the mayor takes on a supplicant tone. "No, other than, we're just hopeful that we could get something for the future. You know, we've been identified by the late Senator Ted Stevens as one of the five villages eroding away, and right now there's 31 of them and we've been proactive all these years and even dealing with the federal government when they wanted to build a cabin on our land for their historical trail. We did successfully negotiate four square miles and being proactive, we're maybe one of less than five villages that have completed our 14(c) 1, 2, 3, and 4, that's required by the federal government"—Monica begins to interrupt, like a radio host trying to cut to break—"and we're also bringing our village up to speed with Homeland Security and what else we have to do. But when I say that, if we could, if you give us a skid-steer and then we could buy a drill for it then we could find out exactly how deep the permafrost is and how far up the hill we need to go"—to relocate the village to safety, per the federal government's own evaluation—"and so there's a lot of things that I would like to see, and it's just forward thinking because, you know, maybe the next time we're going run out of ground to build a berm." The mayor chuckles darkly. After a future storm—the sort that could wipe Pastolik off the map—there might not be any ground left. Monica, somewhere in Alabama, laughs along with him.

I assume the call is almost over—it's been nearly two hours. Then, Monica, as if possessed by some bureaucratic ghost, comes full circle. "Ok. And I think you've answered this before: within two hundred feet of a waterway or body of water—so that would be 'yes'?"

The process is torturous. After a final battery of questions, the call begins to wind down. The mayor offers a closing remark: "I'm glad this happened. I was getting ready to send off a letter to the Governor and our representatives and what-not, because it's been, what, four

months now?" He makes his appeal once more, giving his correspondents a chance at humanity. "As I stated earlier, Pastolik's been pretty proactive, and since we've been identified years ago, and there isn't much place and I can see the people in the village that, *yes, we definitely have to move*, and it's getting scarier and scarier for the residents, so, thank you all. I guess we're done."

The call ends. The mayor turns to me: "You'll write a perfect essay, huh?"

Analysis: Micropolitics and Capacity-Sharing

The mayor knew, on some level, that I was bearing witness to a spectacle, in the sense of something deserving observation. But it was also mundane for him—the colonised tend to maintain low expectations of their colonisers' governments (Whyte, 2020). At the core of the disconnect was also a peculiar asymmetry. For the Alaska Native leaders around the table, all politics was personal, in the sense of being founded upon relationships of trust. The mentions of senators and representatives, of other agencies, was meant to invoke a history of trust and mutual accountability that, for the bureaucrat in question, appeared non-existent. Surely it mattered that, following the completion of this project, this bureaucrat was unlikely to ever encounter the village of Pastolik again; this was the governmental equivalent of meeting a stranger on a plane.

As this vignette shows, the capacity-building framework legitimates colonial abandonment by constructing Indigenous communities as at-fault for being unable to secure assistance. In reality, the processes available to communities are so sclerotic, at times almost farcically so, that it is difficult to imagine making them work efficiently without the assistance of several highly-skilled professionals, alongside a lawyer capable of extracting concessions when bureaucracies fail to be accountable to their own systems. Instead, the state rolls back and Indigenous communities are left shouldering the burden of executing complicated tasks, such as planning and delivering upon complex infrastructural projects, and "managing up" incompetent and unaccountable government functionaries. Is the state in service of the community? More often, the state appears as a referee, coach, or cross-examiner, not as a servant.

Micropolitics do not preclude Tribal leaders in Norton Sound from finding some measure of success within this system. Government officials—particularly those with enough

tenure to understand how the "system" works, find ways of accomplishing community goals that may circumvent barriers. For example, I spoke with one Tribal leader who applied for funding to build an evacuation road for their isolated community. Specifically, the community needed heavy equipment, and their application was denied. In response, the leader applied to a separate federal agency, requesting funding for heavy equipment to complete a project that was entirely unrelated to building the evacuation road. The grant application was funded, and the community received the necessary equipment (and completed the project described in the successful grant application). These adaptations to micropolitical systems recall a sort of contemporary social banditry described by Eric Hobsbawm, whose "noble robber" archetype originates in victimhood, seeks justice, "takes from the rich to give to the poor" (1969: 35), and is admired by their community—if not by the more distant ruling class. This resourcefulness hardly overcomes the micropolitical pressures, but it provides additional avenues whereby Tribal leaders can improvise solutions even when bureaucratic systems have erected barriers. Indeed, such adaptability is often cited as a cultural value of Arctic Indigenous communities (Bodenhorn, 2000; Furberg et al., 2011).

Moreover, Tribal communities have also created their own institutions designed to go toe-to-toe with federal agencies. In Alaska, "regional Native nonprofits" have been established as on-call intermediaries, and serve a quasi-governmental role, such as by applying for grants on behalf of Tribes, administering some grants, providing health care, and directly funding Tribal government staff. The role of these nonprofits remains a topic of lively debate in Alaska, and the organisations are sometimes criticized, e.g., for taking large overheads, and for allegedly favouring certain communities over others. But in instances when a small community's Tribal government might be in disarray, the regional nonprofit provides a backstop that can at times serve a powerful role. With respect to environmental change, these nonprofits sometimes play essential roles in helping communities plan, apply for funding, and execute adaptation projects.

In practice, climate adaptation aid ties itself into a knot, whereby the framework of capacity-building poses a barrier to a community's ability to access aid across non-intuitive and bureaucratic processes. In an ideal world, all communities would be capable of advocating on their own behalf, and using systems designed to meet their capacities at any given moment. But the responsibility to close the capacity gap cannot rest with the disenfranchised, particularly not during times of crisis (whether slow-moving, like climate change, or instantaneous, like an earthquake). Rendering assistance in this instance does in infringe upon

sovereignty; it enables it. To expect communities to successfully fight against the current is to condescend to them — offering education instead of help. Fanon:

> It is utopian to expect the Negro or the Arab to exert the effort of embedding abstract values into his outlook on the world when he has barely enough food to keep alive. To ask a Negro of the Upper Niger to wear shoes, to say of him that he will never be a Schubert, is no less ridiculous than to be surprised that a worker in the Berliet truck factory does not spend his evenings studying lyricism in Hindu literature or to say that he will never be an Einstein. (1952: 95)

A more productive and justice-oriented approach to bridging the capacity gap might start from a paradigm of *capacity sharing*. In a capacity sharing model, government stakeholders and climate-vulnerable communities actively collaborate toward common objectives (Bradshaw, 2019). Governments tasked with administering funds would act less as referees among competing communities and more as collaborators with applicants, sharing a common interest in advancing resilience for the most urgent and cost-effective projects. Such a model would need to deliberately recognise and address existing power differences and avoid culturally inappropriate practices; it would also need to ensure that community-based participation is not superficial but substantive (Kovach, 2021). A resident of the Alaska Native Village of Shishmaref, which is contemplating wholesale relocation, told an anthropologist about the desire to conduct the relocation process "from our local perspective with our cultural values— we want our village and our residents to be the actual people to be *in charge of the relocation*" (Marino, 2015: 74).

If successful, funders would gradually replace the problematic concept of the merit-based competitive grant application with an assessment of climate risk and the efficacy and efficiency of intervening. In practice, part of this transition could be achieved by simply revising grant scoring rubrics to focus primarily on need and urgency.

Instead of regarding a lack of community capacity as a problem to be fixed, a capacity sharing paradigm would seek to augment existing community capabilities with public resources. In Indigenous contexts, this approach aligns with empirical evidence that the most effective policies are those that promote self-governance (Cornell and Kalt, 2010). An early example of capacity sharing is the emerging practice of accepting prospective, draft, or even incomplete grant applications in an early round of review by certain US federal agencies. Another example is the occasional waiver of certain grant application requirements (e.g., benefit-cost analyses) for Tribal Nations in the United States.

Implementing these elements of capacity sharing requires revising laws and/or policies. A more complete paradigm shift will require providing additional resources to grantmaking institutions in order to reverse the private-sector marketisation of expert services (Phillips and Ilcan, 2004). In particular, national and subnational governments would likely have to allocate funding and personnel to provide technical assistance and collaboration to marginalised communities. For example, instead of contracting for-profit engineering firms, communities seeking adaptation funding might collaborate with experts employed directly or indirectly by grantmaking agencies to align on a common vision that meets relevant criteria. An early and encouraging example of this is the US Environmental Protection Agency's (EPA) $177 million "Environmental Justice Thriving Communities Technical Assistance Centers" program, which supports 16 regional non-profit institutions assisting environmentally threatened communities.

By virtue of being more collaborative, capacity sharing could be more time- and resource-intensive than the current meritocratic model. In practice, this would involve shifting resources away from for-profit firms—many of which are already indirectly publicly funded through strategy- and planning-style grants. Over time, this reallocation of resources could lead to more efficient outcomes by bringing more information (e.g., community relocation strategies) into the public domain, encouraging collaboration, concentrating institutional knowledge, and aligning incentives toward efficient deployment of limited resources.

In practice, this transition will likely create implementation challenges and frustrations. For instance, the EPA program mentioned above does not address a root problem wherein overly technical grantmaking procedures disadvantage marginalised communities by conducting official communication in dense bureaucratic language. In this instance, providing technical assistance to a community does not necessarily lead to a more decolonial and democratic form of public service delivery. Taking steps to ensure that local leaders are better able to navigate national and subnational bureaucracies is critical to supporting local sovereignty. Importantly for climate adaptation, such a process potentially offers significant time and resource savings by streamlining local consensus-building, e.g., as in the case of planning community relocation.

To guide the successful implementation of capacity-sharing programs, governments must seek out ways to practice effective "domestic diplomacy," particularly with Indigenous stakeholders who are more likely to distrust colonial governments. "Lessons from generations of colonialism about how to avert bad relationship-making have not been learned by the parties who should have learned them," writes Potawatomi scholar Kyle Whyte (2020: 5). Too often,

local leaders experience national and subnational governments as anonymous bureaucracies with limited accountability and inattention to issues of trust and relationship-building. Domestic diplomacy requires redesigning legacy government programs to allow communities with limited Western bureaucratic capacity to engage on equal footing based upon a foundation of trust.

Effective climate governance requires attending to the potentially disempowering effects of the capacity-building paradigm and engaging with climate-vulnerable rural and/or Indigenous communities with an emphasis on administering assistance rather than administering bureaucracies. Bridging the capacity gap is not the responsibility of already-disenfranchised and marginalised communities. Capacity sharing may offer a path away from disinterested administration and toward a paradigm of climate solidarity.

On Micropolitics and Domestic Diplomacy

Beyond the issues posed by the capacity frame, Alaska Native villages face micropolitical barriers to successfully engaging federal programs, even when those programs (e.g., those within the Bureau of Indian Affairs) are specifically designed to render aid to Indigenous communities. Often, these barriers are technological, cultural, or pragmatic in ways that are not legible (Scott, 2008) to agency staff in cities in the Lower 48. These barriers are *micropolitical* because they are not readily visible to policymakers but nevertheless pose major challenges in the practice of policy execution and service delivery.

A list of micropolitical barriers, with US-specific examples and exceptions, is presented in Table 1. Neither the list, nor the exceptions, are exhaustive. For comparison, Table 2 presents a sample of non-micropolitical barriers — also non-exhaustively.

In this case, micropolitics is about the *conduct* of government rather than its overarching goals. As such, they are easily overlooked or even ignored by high-level officials in Congress and the agencies tasked with delivering services. Nevertheless, they underlie the conditions for success or failure in many communities, as was the case following Typhoon Merbok.

For example, many Tribal leaders are limited in their capacity to manage a bureaucratic landscape of tools that are routine for successful funding applications. This includes, for instance, the often-cited SAMS.gov website that is required for federal funding and procurement. As a result of these complicated systems, some small villages are only able to succeed in applying for federal assistance by hiring outside consultants who can navigate the

labyrinth of bureaucracy involved in federal funding. For a glimpse of the challenge, navigate to www.grants.gov to see the web portal through which most federal grant applications are submitted. Despite the evident best intentions, the portal is a complex maze of information best suited to specialists. The creation of several different “technical assistance centres” or “adaptation centres” has helped some communities overcome these hurdles, but the reliance upon outside experts may still impinge upon Indigenous governments’ capacity to exercise self-determination by articulating their needs in nontechnical language.

Table 1: Summary of certain micropolitical barriers to climate adaption in rural Alaska Native communities. An incomplete list.

Barrier	Example(s)	Notable US-based exception(s)
Communications infrastructure	Unreliable internet connection, power outages, intermittent cell phone signal. (Marino, 2015)	Many grantmaking organisations are willing to communicate via mail or fax, but these alternatives are not necessarily more straightforward or user-friendly.
English spoken as a second language	Indigenous languages (e.g., Central Yup'ik or Siberian Yupik) are spoken as a first language in many communities. Federal employees are rarely bilingual. Documents are rarely translated. (Rivkin et al., 2013)	The BIA Tribal Climate Resilience Annual Awards evaluation rubric encourages Tribes to incorporate traditional language (Bipartisan Infrastructure Law and Annual Awards Program to Support Tribal Climate Resilience and Ocean and Coastal Management Planning for Federally Recognized Tribes and Authorized Tribal Organizations, n.d.)
Misaligned expectations around trust-building	Challenges building relationships across distance and bureaucratic processes—a lack of dedicated attention to building trust as a stepping stone to collaboration. (Whyte, 2020: 2) For example, many villages report rarely receiving visits from federal officials.	Village leaders often cite exceptions, e.g., the presence of individual agency staff who were viewed to be helpful or invested in Tribal success (e.g., Pennington, 2023, p. 236).
Challenges retaining institutional knowledge in Indigenous and non-Indigenous governments.	Small offices make Indigenous communities susceptible to turnover of both staff and elected leaders (Coleman et al., 2021). Community planning documents require frequent revisions. Non-Indigenous staff turnover may also be high, and transfer of institutional knowledge and relationships between outgoing and incoming personnel may be poor.	The BIA Tribal Climate Resilience Annual Awards evaluation rubric encourages Tribes to develop capacity and skills within the broader Tribal community (Bipartisan Infrastructure Law and Annual Awards Program to Support Tribal Climate Resilience and Ocean and Coastal Management Planning for Federally

		Recognized Tribes and Authorized Tribal Organizations, n.d.).
Technical language impedes understanding and distorts results	Community members may feel side-lined by highly technical language in planning and grantmaking (Rivkin et al., 2013).	None known.
Limited flexibility within federal government to pursue decolonial approaches that align with community priorities	The logic of cost-benefit analysis introduces systematic bias (e.g., by undervaluing subsistence resources Bradshaw, 2019); non-Indigenous officials are not adequately familiar with Indigenous contexts.	The US Department of Transportation PROTECT Grant Program provides for "economic analysis flexibility for Indian Tribes" (US DOT, 2023)
Lack of shared objectives	Many grant applications are scored based on rubrics with loose relationships to applicant need, and instead construct a bureaucratic logic of meritocracy. (E.g., in feedback to one Tribal government's rejected funding application, BIA mentioned that the application exceeded the page limit indicated on the grant instructions.)	The US EPA Indian Environmental General Assistance Program provides a framework for EPA-Tribal Environmental Plans (ETEPs), including on "identification of mutual roles and responsibilities". (US Environmental Protection Agency, 2022)
Difficulties coordinating among various Tribal entities	The US established Alaska Native communities with three distinct governmental or quasi-governmental entities, including Tribal governments, Alaska Native corporations, and municipal (city) governments (US Government Accountability Office, 2020). The Denali Commission was founded in an effort to address this complex coordinating task but has not succeeded, citing a lack of funding resources (US Government Accountability Office, 2009).	Several communities in Norton Sound have bi- or trilateral working groups to coordinate among entities.

Physical and cultural distance	Many federal agencies' regional offices (e.g., BIA and EPA) that serve Alaska are based in the Lower 48, leading to a lack of Alaska-specific expertise and familiarity.	The Bureau of Indian Affairs has several dedicated Tribal climate resilience liaisons.

Table 2: Summary of certain non-micropolitical barriers to climate adaption in rural Alaska Native communities. An incomplete list.

Barrier	Reference
Cost-matching requirements limit eligibility	(US Government Accountability Office, 2003, 2009, 2022)
Lack of funding appropriated by Congress	(US Government Accountability Office, 2009, 2020)
High cost of construction (and low uptake of low-cost alternatives)	(US Government Accountability Office, 2009)
Poor coordination by federal agencies with overlapping responsibilities	(US Government Accountability Office, 2009, 2022)
Policies that restrict pre-disaster hazard mitigation	(Bronen and Chapin, 2013; US Government Accountability Office, 2020)
Rigid eligibility guidelines and incompatibility with Alaska-specific Tribal organisations (specifically, Alaska Native Corporations)	(Pennington, 2023)
State laws require hiring licensed workers for many construction jobs, with the practical effect of requiring labour to be imported from elsewhere in the state at a much higher cost.	(Huskey, 2004)

Individually, several of these challenges have also been identified by other researchers (e.g., Eichelberger, 2012; Marino, 2015; Murray, 2019; Pennington, 2023). But brought together, this pattern of seemingly mundane obstacles may collectively disenfranchise Indigenous governments. Micropolitics functions by rewarding those communities that are best able to succeed within externally imposed colonial structures. As a result, Indigenous polities are subjected to a particular form of neoliberal and colonial governmentality (Coulthard, 2014), whereby their consideration for funding is made contingent upon adopting an externally-imposed political subjectivity—for example, as clients of engineering firms and grant-writing specialists who are fluent in the institutional language of metric tons and dollars. To receive aid, these Indigenous communities are pressured to adopt the bureaucratic language and logic of their colonisers. This form of governmentality echoes what Agrawal terms "the soft hammer of self-regulation" (2005: 15).

In practice, sclerotic governmental processes may open up avenues for the exercise of bureaucratic discretion. In the best of situations, the use of discretion may serve as an antidote to the reflexive logic of bureaucracy. But experts express uncertainty "as to whether bureaucratic discretion can be utilised in service of adaptive governance, as opposed to when legal and regulatory changes are needed" (Marino et al., 2023). Ultimately, the deployment of bureaucratic discretion may only be a stop-gap measure to address more deeply rooted governance failures that prevent successful adaptation governance (IPCC, 2023).

Discussion: Improving Domestic Diplomacy

Government institutions do not interact as sovereign entities in a frictionless medium. And there are forces at play that operate at more mundane (or covert) levels than policy itself. Governments are not things that can be separated from the complex world of human relationships; rather, they are made up of people, computers, intermittent phone connections, fax machines, and a whole host of human and more-than-human components (Abrams, 1988). The actual practice of how governments communicate with each other is "messy" (Law, 2004). And messiness is not apolitical; it tends to entrench existing power structures. The neglect of micropolitics, which is one consequence of this messiness, leads to chronically poor relationships and ineffective communication between Indigenous communities and colonial governments.

Unaddressed, micropolitics may prevent Indigenous communities from engaging on equal footing with the systems designed to serve them. This disparages their sovereignty. In order to succeed, these relationships must be built on a foundation of mutual trust and understanding. These institutional failures are not solely the responsibility of Tribes to address (e.g., through "capacity building" as a self-contained remedy); framing them as such inappropriately accepts a logic that makes colonised communities responsible for overcoming their own marginalisation (Kashwan and Ribot, 2021; Marino and Ribot, 2012).

These phenomena are rooted in deep structures of colonialism and racism. The context of "natural" disasters often gives false cover to the violent origins of environmental vulnerability (Marino et al., 2022). In the case of Alaska Native villages, their current precarity is not an issue of bad geographical luck; rather, it's politics all the way down.

The micropolitical issues identified in this chapter are not universal. In the US, for example, many agencies have taken steps toward addressing these issues. In 2022 the White House released "Guidance on Indigenous Knowledge," encouraging federal agencies to integrate traditional and Indigenous knowledge practices, where appropriate, into their processes and protocols (Council on Environmental Quality, 2022). These are encouraging signs of progress.

This final section elaborates upon three specific ways in which micropolitics impinges upon Indigenous self-determination in climate adaptation, and suggests steps toward improving these issues. These suggestions are summarised in Table 3.

Table 3: Key Problems and Policy Recommendations

	Key Problem	Policy Recommendation
1	Technical planning requirements limit communities' agency.	Initiate government-to-government collaborations prior to the technical planning stage and ensure non-technical language during consultation. Wherever feasible, allow one plan to serve multiple planning requirements.
2	Poor relationship-building limits trust.	Visit in person, prioritise effective communication, and take the time to learn about communities. Invest in dedicated liaisons who can serve as ambassadors of non-Indigenous governments.
3	A lack of collaborative norms hinders progress	Develop joint agendas and agreements between Indigenous and non-Indigenous governments Prioritise needs-based assessment where feasible.

Technical planning requirements limit communities' agency.

Across bureaucratic funding landscapes, technical planning is often a prerequisite to receiving funding for climate adaptation. Having a hazard mitigation plan, or a technical architecture for a community adaptation project, is often a necessary condition for major infrastructure projects. As a result, Indigenous communities are required to perform complex infrastructural planning tasks that consume time and resources and limit community agency by requiring third-party involvement.

This leaves rural communities in a catch-22. In order to be eligible for funding, they must submit detailed and technical plans. But they require funding in order to create such plans; that level of capacity is rarely available within any small community, settler or Indigenous. On the wall of one Tribal government's office building is a handwritten list of these plans, which the community has made in recent years. It numbers in the dozens. The result is a morass of duplicative efforts that strain Indigenous governments' capacity, owing in large part to a lack of "integrative adaptation planning" (Whyte, 2013: 520).

To fill this capacity gap, third parties are often hired by Indigenous communities to translate local needs into the language of engineering and infrastructure planning. When conversations about the delivery of adaptation services are primarily conducted in this technical language, community members are often disenfranchised, limited in their ability to self-advocate and critique decisions that are made on their behalf or with their partial consent (Rivkin et al., 2013). Third-party (and often for-profit) firms become the *de facto* representatives of communities, but their ability to communicate priorities may be limited by a lack of attention to cross-cultural issues, misaligned incentives, and an inability to frame local priorities in technical language. These language games also risk falling into the same traps described by Arendt (1963) and Cohn (1987), wherein bureaucratic language facilitates abandonment and dehumanization.

Policy recommendations: Initiate government-to-government collaborations prior to the technical planning stage. (In the US, this is already required by federal law but not always adhered to; *cf.* Consultation and Coordination With Indian Tribal Governments, 2020). Where possible, encourage the use of non-technical language for community consultation. Reduce requirements for pre-award technical planning. Wherever feasible, allow one plan to serve multiple planning requirements.

Poor relationship-building limits trust.

"Consent, trust, accountability, and reciprocity are qualities of relationships that are critical for justice-oriented coordination across societal institutions on any urgent matter," writes Whyte (2020: 2). A long history of colonial harm has created a baseline level of distrust between Indigenous communities and non-Indigenous government officials (Bradshaw, 2019). Many Alaska Natives working in Tribal government share the familiar experience of speaking to government staff thousands of miles away and learning that the person on the other line has a limited conception of these communities' geography, history, and values. As one village president explained: "They're clueless."

The community leaders of an Iñupiaq village in Northwest Alaska note that private-sector representatives (e.g., from oil companies) tend to approach their community with more grace and respect than representatives from state and federal government (Kaktovik, Alaska, 1991). This may be related to private-sector representatives feeling a need to build trust and goodwill. Government staff, by contrast, may feel already empowered, and therefore unincentivized to build goodwill or disrupt their position as gatekeepers to funding and resources.

Following cultural norms, many Indigenous communities place an emphasis on building relationships over time and in person (Whyte, 2020). Many communities express frustration at the perceived lack of in-person visits by agency staff (Jensen et al., 2022; Pennington, 2023). When visits do occur, they are often seen as too short. In interviews, exceptions to this general trend were spoken of warmly.

A resident of Shishmaref, Alaska, told an anthropologist, "Let the federal agencies come here and experience a whole storm, not come for the day and leave… it always seems like they don't believe us" (Marino, 2012: 379). When Pastolik received a multi-day visit from FEMA officials, eight months after Typhoon Merbok, the federal employees commuted each day from Nome on the local airline—a $585 round-trip ticket—rather than arranging local accommodation, such as by staying in the designated guest bedrooms at the Tribal office. This physical and emotional distance—and the frequently heard desire from Tribal leaders to host agency personnel—creates the divide in which the "social production of indifference" (Herzfeld, 1992) flourishes.

Policy recommendations: Non-Indigenous government officials often neglect the simple but essential practices required to build trust over time. Visiting in person, prioritising

effective communication, and taking the time to learn about communities are essential steps to overcoming a history of hostile federal policies and laying a foundation for effective collaboration. Building trust is a critical step in effective collaboration. As such, it requires time and resources that are rarely allocated today, to the detriment of Indigenous/non-Indigenous relationships. Pennington (2023) urges the importance of hiring more dedicated Tribal liaisons at FEMA—the same is true for many other government agencies that routinely coordinate with Indigenous communities.

A lack of collaborative norms hinders progress.

The funding landscape for climate adaptation projects can be competitive by design (US GAO, 2022). In the United States, agencies often (but not always) assume the role of impartial referee. Their role is generally to judge the quality of funding applications rather than volunteer their help and expertise in partnership with vulnerable communities. In this configuration, Indigenous communities and colonial suffer in a non-collaborative process (Bradshaw, 2019). A putatively meritocratic system often rewards the communities who best meet agencies' stated requirements and scoring rubrics, rather than the communities most in need of assistance. As a result, communities with greater access to certain resources generally produce more competitive applications.

In Alaska, many Indigenous communities feel that competing with one another for scarce resources violates cultural norms (Jensen et al., 2022; Rock, 2016). One Tribal president explained after Typhoon Merbok, "We're related to everybody in [village A], [village B], and [village C]. All of our Tribes felt a tremendous sense of… *wow, we got really lucky*, while 24 of our family and extended families lost their homes altogether." This sentiment is common across the Norton Sound region, where Tribal leaders fear that by applying for federal aid, they might be taking away from communities with direr needs. The principle of competition for scarce public resources, which is central to a neoliberal model of governance (Graeber, 2009), is irreconcilable with Tribal values in Western Alaska. This leaves community leaders facing a choice: either transgress community norms or underperform in the "marketplace" of competitive funding, in which the federal government plays the role of the consumer.

Policy recommendations: Continue to develop joint agendas and agreements between Indigenous and non-Indigenous governments (e.g., the US EPA-Tribal Environmental Plan) that outline roles and responsibilities toward delivering on shared goals. Involve non-

Indigenous government officials in the grant process as collaborators rather than referees. Prioritise *needs-based* assessment where feasible.

Conclusion: Climate adaptation, trust, and sovereign Indigenous futures

For Alaska Native villages — like many rural Indigenous communities — climate adaptation is a multifaceted challenge. In many ways, it is inseparable from the broader effort to survive amid continued colonial pressures (Curley and Lister, 2020). In this context, climate adaptation is not merely about coastal defence or erosion management; it is about creating liveable futures that make space for Indigenous flourishing, self-determination, and prosperity, as defined by communities (Heise et al., 2017). These futures, in keeping with the Lakota axiom, *Mitákuye Oyás'iŋ* ("All my relations," Black Elk, 2016), extend far beyond the boundaries of most government officials' handbooks.

Generally speaking, micropolitical issues between Indigenous and non-Indigenous governments arise when limited consideration is given to the historical and political contexts that led to the present conditions of environmental, social, and political precarity (Kashwan and Ribot, 2021). These problems may be ameliorated with the introduction of new systems, such as government-funded technical planning centres, that can help bridge the capacity gap. But a commitment to Indigenous self-determination requires ensuring that programs themselves are designed to meet Indigenous communities where they are, which in turn requires a shift from administering aid programs to *rendering assistance* and solving problems based on collaborative norms. When Indigenous governments are perceived to fall short, settler governments need to ask themselves: *what did we get wrong?* rather than assigning blame or fault to Indigenous communities.

Sociologists have long warned against the temptation to represent the state as something separate from a collection of people and technology (Abrams, 1988). Governments do not communicate with each other; people do. In the case of Tribal and federal governments in Alaska, government representatives speak, email, text, fax, post on social media, and submit complicated online forms. The government-to-government relationship enshrined in law is ultimately person-to-person. The government-to-government relationship between the United States and foreign nations is conducted through the intimate human rituals of state dinners, gift

exchanges, ambassadorships, and telephone calls between leaders of similar political stature. By contrast, the domestic diplomacy between Tribal governments—"domestic dependent nations" according to US law—and federal agencies could hardly be more different. The face-to-face connections that engender trust and mutual understanding are widely heralded as exceptions, rather than the rule.

It is not beyond the capacity of non-Indigenous governments to create long-lasting relationships based on trust and shared objectives; it is routinely done with other sovereign nations. But building these relationships requires prioritising a form of domestic diplomacy that continues to be neglected even at a time of renewed commitment to Indigenous justice. In rural Alaska, this requires building interpersonal connections, operating with reasonable expectations of Tribal bureaucratic capacity, rendering assistance in a collaborative manner, and meeting Alaska Native communities in an earnestly diplomatic fashion, by traveling some distance—politically, culturally, and geographically—to find a shared space where two very different governments can collaborate successfully. Researchers, advocates, policymakers, and government officials must attend to these micropolitical forces in order to close the persistent gaps between ambitions and outcomes.

6. Infrastructural Fear: Or, When Climate Change Isn't an Allegory

Climate change has become a dominant allegory or prism through which contemporary scholars attempt to make sense of present and future politics of life on Earth. In two climate-vulnerable Indigenous communities in Western Alaska, climate change rarely receives such treatment. Fear of climate change is infrastructural, not existential. These rural and Indigenous vantages onto the Anthropocene challenge the tendency to extract meaning from environmental change or to attach apocalyptic and political anxieties to its hazards. In this chapter, I explore what it looks like when climate change is not about anything other than itself—i.e., is not a hyperobject—and explore the ensuing politics of pragmatism that characterise two Indigenous communities' ontologies of climate change. These perspectives provide a critical contrast to the emerging orthodoxies that tend to frame climate change in global and apocalyptic terms.

Climate change as a synecdoche

A peculiar disconnect has emerged in much of North America and Europe. A significant share of the population in countries like the United States is preparing emotionally and politically for climate catastrophe. A separate share of the same societies is proceeding as normal—and, in some cases, finding existential anxiety in entirely separate sources (e.g., fear of immigration or fear of a tyrannical government, Garrett, 2021). A recent study of Americans found that just 32% claim to "hear about global warming in the media at least once a week" (Marlon et al., 2019). Another study asked American youth (aged 16-25), "Does climate change make you feel any of the following?"; 46% responded "Yes" to the statement, "Humanity is doomed" (Hickman et al., 2021: e868).

In the past several decades, climate change has become an allegory, or at least a synecdoche, within a certain subset of academic, artistic, and popular discourse. I dust off the old Greek word, which refers to a figure of language in which part of something represents the whole (as in, *to ask for someone's hand in marriage*). Put differently, climate change is a synecdoche in that it is a prism, a narrative lens, through which a significant cross-section of

humanity now assesses the state of play of the human place on Earth. Paul Ehrlich, the eminent biologist and environmentalist, told an audience at an Earth Day rally in Washington, D.C., "A cow breaks wind in Indonesia, and your grandchildren die in food riots in the United States" (Ross, 1991: 3). It's not the methane that kills your grandchildren, nor the subsequent climate change; what kills your grandchildren, in Ehrlich's formulation, are rioters, or perhaps the police sent in to restrain them. In a tangled web of causality, a changing climate is at the centre—but it is only one part of a much larger assemblage. Hence the synecdoche: climate change is like the "ring-whorled prow" of Beowulf's ship, a socioecological epithet representing something much larger than a couple degrees of warming.

Humanities scholars and social scientists have been relatively quick to accept this expansive approach to climate change. Its best-known articulation comes from Timothy Morton, who defines climate change as a "hyperobject" in that it is "nonlocal: it's massively distributed in time and space" (2013: 48). Or consider Dipesh Chakrabarty's excellent and widely-read essay, "The Climate of History," in which Chakrabarty extrapolates from climate change to a sense of a shared planetary destiny for humankind. "Unlike in the crises of capitalism, there are no lifeboats here for the rich and the privileged" (2009: 221). In at least some limited sense, Chakrabarty is saying, climate change is a common thread binding together humanity.

More anecdotally, many of us who work on climate-related issues, myself included, are accustomed to hearing our friends and relatives ask us, of climate change, "Do you think we'll make it?" Neither Chakrabarty nor my close relations mean to suggest that climate change itself will be the proximate cause of a civilisational breakdown. That is, "Do you think we'll make it?" does not ask, "Will I die in a hurricane, heat wave, drought, or other climate-change-induced *event*?" Unlike films such as *The Day After Tomorrow* (Emmerich, 2004), in which millions perish in storms, floods, and a sudden global cooling event, mainstream climate discourse suggests that anthropogenic warming will be the *catalyst* for a litany of disasters, but not strictly the disaster itself. Instead, war, human displacement, zoonotic disease, and other hazards, known and unknown, are implicated as part and parcel of climate catastrophe.

In many respects, this synecdoche (or allegory) is not particularly new. For millennia, societies have looked to the weather and climate to explain divine wrath or favour, the success or failure of humans, and to underpin past and future mythologies of apocalypse (Hulme, 2008). In the mid-20th century, many observers were gripped with fear of global cooling, which scientists credibly hypothesised could be triggered by the climatological consequences of

nuclear war (Turco et al., 1983). “The thesis of global climate change,” wrote Andrew Ross in 1991, “has become firmly rooted in our world-view, a permanent component of the stories we tell each other about the interplay between natural and social laws that affects our everyday life and our picture of its future” (p. 6). In this way, climate change has become the nuclear bomb of the 21st century, insofar as it conveys an “expectation of the apocalypse” (Sontag, 1961b: 224) that has been a regular (if not quite permanent) feature of the urban Global North since at least the 1950s.

As with the dawn of the atomic era, storytellers, philosophers, and other artists have helped to assimilate climate change into the modern psyche. These stories exhibit diverse moral and political judgments that extend well beyond the mechanics of climate change, and speak much more broadly to the faults and shortcomings of a given social and economic order (Thornton and Thornton, 2015). For example, Naomi Klein’s popular book, *This Changes Everything: Capitalism vs. the Climate* (2015), places the climate crisis on the same ontological plane as capitalism, a superstructure of human and political organisation.

What I have hopefully made plain by now is that to speak of climate change, more often than not, is to speak in planetary strokes about the human condition, regularly reaching across even the highest barriers of privilege and geography. The scholarly gravitational pull is toward a planetary frame of analysis—one that tends to arrive (often hesitantly) at a modernist conception of a singular humanity (Chakrabarty, 2009; Latour, 2017, 2018; Swyngedouw, 2023). Rather than the *ends* of plural *worlds*, the focus of this anxiety is on the finitude of a shared plane of human existence (Danowski and Viveiros de Castro, 2017).

We now have a rich vocabulary with which to draw connections to socioeconomic systems while still speaking about environmental change e.g., “climate breakdown” and “Anthropocene,” the latter of which was the *Financial Times*’ word of the year in 2023. Our language is rife with political valance as we describe a crisis that, in a strict geophysical sense, is unfolding in the atmosphere and geosphere. But we know, particularly in academic and academic-adjacent circles in the Global North, that to speak of the global climate crisis is really to speak of politics, histories, and futures. In this discursive climate, we perhaps take for granted that climate change comes to us as a synecdoche. Amid such consensus, we might fail to consider that for some, climate change may not be a synecdoche (or hyperobject) at all.

Different climate, different fear?

As a matter of terminology, dread (or anxiety) and fear are not the same thing. Fear, for my purposes here, has a clear object. By contrast, dread cannot be attached to a clear object (Garrett, 2021). It is "objectless," an "anxious perturbation" about a future harm that is not-so-clearly defined (Mills, 2019: 1273). In this way, the mid-century fear of nuclear disaster is distinctly different from the 21st-century dread of climate catastrophe (Sontag, 1961b). In the former, the mechanisms of harm are grimly straightforward; in the latter, they are usually shrouded in uncertainty, extrapolations of calamity drawn from sober scientific reports, punctuated by deadly disasters (wildfires, hurricanes, etc.). Kierkegaard describes *angest* (anxiety or dread) in the tortured framework of the human spirit: "How does spirit relate itself to itself and to its conditionality? It relates itself as dread… flee from dread, he cannot, *for he loves it*" (Kierkegaard, 1980: 44). Freud defined "neurotic fear" as a sort of dread that was so common among humans that he did not consider it an illness: "a condition of free-floating fear as it were, which is ready to attach itself to any appropriate idea… Many persons who cannot be termed ill show this tendency to anticipate disaster" (Freud, 1920). Susan Sontag writes of "the lure of such generalized disaster" (1961b: 215) made manifest in science fiction films.

These are not straightforward desires in which dark futures become dark presents; rather, what these authors describe are complicated libidinal attractions. In contrast with fear or anxiety, where the hazard or threat is clearly known (e.g., nuclear war), dread always involves a high degree of ambiguity—and by extension, imagination. In the case of climate dread, few people worry about drowning due to sea-level rise or dying from wildfire smoke inhalation. Rather, smoke-choked air and rising tides are the horsemen of climate apocalypse, synecdoches of an undefinable future, harbingers of some darker cataclysm still shrouded in uncertainty. And it is precisely this unknowability—the inability to attach dread to a concrete object—that makes it so darkly alluring to the Modern psyche.

But this is not the case in some of the planet's more climate-vulnerable places. In Pastolik, for example, the fear of climate change rings as clearly as a bell. The mechanism of destruction is plain: warmer oceans lead to worsening storms, which threaten to swallow the village. Delayed sea ice coverage means that autumn storms cause more erosion than they once did. (A couple dozen centimetres of sea-level rise add insult to injury, but are by no means the primary culprit.) When the low barometric pressure of a storm pulls the sea skywards, the village's only would-be evacuation road is swallowed, and Pastolik effectively becomes an

island. After a terrifying experience during Typhoon Merbok in 2022, the reality of the vulnerability sank in. Now, the arrival of autumn presages a thrum of fear within the village as residents wait anxiously for freeze-up. One community leader in Pastolik explained to me, "I'm worried we're gonna get washed out one of these days. After Typhoon Merbok—it opened a lot of people's eyes, like *why are we still here?*... I worry about our future here, in this location. I don't like living here in the fall, like September to November."

There is a certain irony to climate dread: namely, that its most prominent movements and leaders often emerge from relatively climate-safe places, such as cities in the United Kingdom or Sweden (e.g., Extinction Rebellion and Greta Thunberg). This is also true of academics who study and theorise climate change, who generally live between 30 and 60 degrees of latitude, reside in affluent cities, and spend most of their lives indoors (Ingold, 2007). Broadly speaking, climate change poses a less immediate, urgent, and corporeal threat to many of these communities than it does elsewhere on the planet. In these contexts, fear of climate change is necessarily indirect and at times diffuse. The hazard to life and limb is not normally clear; it is more like Ehrlich's cow in Indonesia. It is also tied in with deeper anxieties about the longevity of the broader human enterprise, the structure of societies and markets, and technology. In some instances, academics explicitly reject attempts to view climate change in a narrowly-bounded way, arguing that declining to place climate change into a broader political-historical context gives cover to ongoing systems of extraction and oppression (Yusoff, 2019). In this line of thinking, viewing and addressing climate change as a chiefly infrastructural or geophysical problem is derided as a "fantasy" (Swyngedouw, 2023: 18) with dangerous political consequences.

These politicised depictions of climate change may not resonate with more climate-vulnerable communities. Such communities may be less interested in diagnosing global political-economic trends than in the nuts-and-bolts requirements for survival. Worse still, the apocalyptic narratives that sometimes explicitly surround academic discourse of climate change fall flat with communities that are broadly unpersuaded that, after centuries of violence and imperialism, climate change could be the *coup de grâce* that finally leads to their demise (Kashwan and Ribot, 2021; Marino and Ribot, 2012). "Colonialism attempted to destroy the Indigenous world far beyond some of the worst predictions of climate change," write Curley and Lister (2020, p. 254; see also Whyte, 2020, 2018, 2017). Indeed, many of these communities are already post-apocalyptic, and thereby face climate change in an entirely different manner than those whose ancestors have generally been historical victors.

Potawatomi scholar Kyle Whyte suggests that, for some Indigenous Peoples, climate change is best understood as a sort of "colonial déjà vu" (2016). From that vantage, some Indigenous Peoples seem markedly uninterested in entertaining narratives of a(nother) apocalypse-to-come. At the 2022 Alaska Federation of Natives conference in Anchorage, Alaska, the newly-elected Congresswoman Mary Peltola—the first Alaska Native to serve in Congress and an icon of Alaska Native empowerment—closed her keynote address, saying: "Your journey through these last ten thousand years is one that we are walking every day, and I know we will continue on for *at least* another ten thousand years" (2022). The majority-Native audience in the packed ballroom quickly rose in a standing ovation; many participants waved cut-out signs printed with an image of the Congresswoman's smiling face.

I cannot fathom how to reconcile such a scene with, for example, Latour's insistence that "*Il faut donc accepter de tenir enfin pour de bon un discours apocalyptique au temps présent*" ("We have to agree finally to engage for real in an apocalyptic discourse *in the present time* [or present tense]" (2017, p. 194, emphasis in original). Nor with what Erik Swyngedouw calls "an unquenchable fascination for the dystopia-to-come: images of scorched lands, disintegrating icebergs, fleeing people, hungry faces or an unliveable environment" (2023: 20). I am not the first to notice the unsettling disconnect between certain scholarly projections of climate change and those critical responses emerging closer to the corporeal and Indigenous frontier of climate change—particularly in the settler states that are "already existing Indigenous dystopias" (Curley and Lister, 2020: 252).

There is a tension calling out for resolution. "What would a climate change narrative look like that keeps in view not just the suffering but also the futurity of imperilled communities?" asks Alaska-based scholar Will Elliot (2017). In what follows, I explore how such narratives emerge in two Indigenous communities where climate change threatens life and limb in immediate ways, but without foreclosing on the possibility of a future in its own right. In doing so, I ask whether and how these perceptions of climate change are attached to convictions or anxieties about socioeconomic systems, futurity, and sovereignty.

This chapter draws upon an 18-month multisited ethnography (Marcus, 1995) focused on Norton Sound, Alaska, an area of the state that traces over 700km of coastline of the northern Bering Sea from the Bering Strait down to the northern edge of the Yukon-Kuskokwim delta. The Norton Sound region is home to 10,000 residents, one-third of whom live in a single small city—Nome, population 3,600. The rest live in 14 Alaska Native villages. (A 15th village is inhabited only in the summer.) As of 2020, 53% of Nome's residents identified as Alaska

Native; of the villages, all but one (Unalakleet) are almost entirely Alaska Native. Most of the non-Native population is comprised of the semi-resident school staff. Norton Sound also encompasses three distinct Indigenous groups. By geographic area, it is predominantly Iñupiaq, with two Yup'ik villages in the south (St. Michael and Stebbins) and two Siberian Yupik villages in the west on St. Lawrence Island (Gambell and Savoonga). Given the rich cultural traditions and diversity of the region, this multisited ethnography is not an ethnography of any one of these groups, nor of all three; rather, it is an ethnography of the politics and affects of climate change in Norton Sound.

I conducted qualitative research (interviews and participant observation) after securing formal permission from the Tribal Councils of two villages in the region. I also conducted research in Anchorage, Alaska, including during the 2022 Alaska Federation of Natives conference; in Spokane, Washington, during the 2022 National Tribal Leaders Climate Change Summit; and in Nome, Alaska. I also conducted over 200 hours of participant observation in the Tribal offices at Sinuk and Pastolik, observing and helping Tribal staff with their day-to-day work, from administering a local food bank to applying for grants from the Federal government.

Finally, my research for this chapter also brought me into contact with certain archival and anthropological records, such as those describing the wave of Indigenous deaths that swept across the Bering Strait region toward the close of the 19th century (Crowell and Oozevaseuk, 2006; Demuth, 2019). These sources give crucial context to a population that has experienced apocalypse in recent generational time—and survived to tell its stories.

Both Sinuk and Pastolik face grave threats from climate change, albeit in different ways. In Pastolik, the nature of the hazard is immediate and corporeal. A perfect storm could conceivably wash away much of the village in the span of a day. Sinuk is also dangerously exposed to the ocean, but with a wider margin of shore between the waves and its homes. Still, climate change has caused intense changes to this community that is utterly dependent upon subsistence hunting, especially of marine mammals. Changes in the timing, reliability, and thickness of sea ice have made hunting more difficult, and in some cases, more dangerous (Huntington et al., 2017). As a result, changing weather and climate are topics of regular conversation in both communities. In September 2022, a record-breaking extra-tropical cyclone struck the region, causing widespread damage. In one of these two villages, a man ventured outside during the night of the storm and was not seen again. Weather, hunting, and the varied and reciprocal relationships between humans and the landscape are topics of daily

conversation. But the quality of these conversations—and particularly the role of fear and its cousin, dread—is remarkably different from how climate change and its consequences are commonly portrayed in scholarly discourse.

This research led me to four principal findings. First, that the fear of climate change in Sinuk and Pastolik is not existential dread. Although it occasionally manifests in existential terms, it is more of an *infrastructural* fear, in that the fear exists on a concrete physical plane, and so too do the remedies to the threats—which are infrastructural and/or bureaucratic. Steel, cement, and heavy machinery are envisioned as the solutions to these hazards, not reconfiguring societal power relations, global energy supply, or economic structures.

Second, adaptability to climatic and other changes is rooted in a sense of cultural identity and history. The capacity for resilience to environmental change is a source of pride and an antidote to climate despair—albeit not necessarily to despair writ-large.

Third, I found that existential fear—but not dread—is indeed a prominent feature of the emotional and political landscape, but that the object of existential fear is always mediated by the threat from colonial instruments—a bureaucratic machinery of destruction that operates through regulatory apparatuses, particularly those governing subsistence traditions or limiting adaptive capacity. Climate change is sometimes implicated in these existential threats, but not always. I never once heard that climate change threatened the end of the world. I more often heard that changes threatened *our way of life*; this was regarded as a form of collective death that seemed more fearsome than the threat climate change posed to individual bodies. This environmental threat was normally tied in with other environmental threats (e.g., industrial overfishing or the passage of commercial ships), and never stood apart from colonial power.

My fourth main finding is that climate change in these communities is a recognisable phenomenon, but it is not a hyperobject. It does not encompass everything; nor does it encompass anything beyond itself. Rather, it is ontologically local. Some scholars have suggested that a local ontology of climate change is incomplete or politically inappropriate (Morton, 2013; Yusoff, 2019)—which raises a question: are these Indigenous communities wrong to think on their own bounded geographic terms instead of including "the outside world"? I will argue that their perspective—partial, embodied, and decidedly local—is a decidedly wise and appropriate way to understand futurity, to avoid the neocolonialism of totalising visions (Haraway, 1988), and to "de-dramatize human life as we squarely take responsibility for what we are doing" (Povinelli, 2016: 28).

What emerges from these findings is a place-based rebuttal of the uncritical prophesies of destruction that have become quasi-orthodox among some scholars. “How can we think in times of urgencies without the self-indulgent and self-fulfilling myths of apocalypse?” (Haraway, 2016: 35). Here we find one answer.

Infrastructural fear *contra* existential dread

One day, in the Pastolik Tribal office, the grantwriter excitedly showed me an online news article detailing how a Tribe in Washington State recently built a 50-foot (15-meter) tall tsunami evacuation tower, designed to shelter 400 people from a Pacific Ocean tsunami. A photo shows two staircases weaving upwards between four enormous steel piles, reaching a two-story nestlike structure at the top. The notion of an evacuation tower had come at a fraught time for Pastolik, which was wrestling with whether to shore up the eroding coastline with riprap (also called rock armour), or to try to relocate the entire village to higher ground. Pastolik is one of 31 Alaska Native villages identified by the US Federal government as “imminently threatened” by flooding and erosion (US Government Accountability Office, 2009: 12), but has received scant assistance in finding an appropriate solution to the threat.

At times, I was taken aback by the assumptions of resilience, particularly in my conversations in Pastolik. A tribal leader told me that the Tribe’s three governing entities need:

> to sit down and decide: *are we going to keep trying to protect-in-place while we're trying to move on?* Because, you know, what if [US Department of Transportation] funds us [for] the whole thing? And then we have a storm and everything gets washed away again? They're not going to want to keep funding us if we're going to keep getting washed away.

What stands out in this attitude is the implication that “everything” can get washed away, but that the people of Pastolik will endure, and that any displacement will be temporary. The issue of the people’s survival is taken as self-evident—the uncertainty is fundamentally a question of housing and infrastructure.

In this context, the fear of climate change in Pastolik is always accompanied by thinking in terms of a solution. In academic circles, the “solution” to climate change usually involves a wholesale reconfiguration of global economies, politics, values, and the like. The scale of the problem, and the associated solution, is existential. In Pastolik, the problem, and its solution, are much more mundane. The threat is coastal erosion (see). The solution is to defend and/or move the village. This is an engineering challenge, frustrated by the inability to engage a

federal government unresponsive to Alaska Native requests for assistance (US Government Accountability Office, 2022).

Just behind this discourse, one perceives an implication that if the infrastructural solution is successfully implemented, Pastolik will in some ways be *adapted* to climate change, in a durable sense. There is a feeling of possible arrival; that, having achieved this monumental undertaking, the community will be able to get on with the work of maintaining a peaceful and prosperous village on its own terms. In this discourse, climate change appears as a threshold to be crossed, or a hurdle to be cleared—not as the entry into a new chapter of human life. Certainly, the prospect of "the ruin of our global civilization as a consequence of its very hegemony" (Danowski and Viveiros de Castro, 2017: 2) is a prognosis that belongs to an entirely different world.

Figure 10: Examining erosion after Typhoon Merbok—an infrastructural threat.

Adaptation as a practice of cultural values and identity

The responses to the prospect of climate change in Sinuk and Pastolik seem blasé alongside the apocalyptic depictions circulating in media and scholarship. But they also reflect Indigenous cultures for whom adaptability to changes (environmental and otherwise) are core to group identities and histories. "Indigenous peoples often imagine climate change futures from their perspectives (a) as societies with deep collective histories of having to be well-organized to adapt [to] environmental change *and* (b) as societies who must reckon with the disruptions of historic and ongoing practices of colonialism, capitalism, and industrialization" (Whyte, 2017: 154).

In simple terms, the solution to climate change, for many communities, is not to stop climate change. Rather, the solution (or approach) is adaptation. The act of adaptation comes across as strikingly apolitical and has relatively little concern with transnational or global agendas—except as an assertion of Indigenous sovereignty. To understand this orientation in context—the way climate change in Sinuk and Pastolik is regarded as an adaptation problem rather than as an allegory or synecdoche—requires considering both the traditional values of resilience and adaptation among Alaska Native peoples, and also the massive and violent transitions of colonialism which the same communities survived over the past 150 years (Marino, 2012; Marino et al., 2022; see also Nuttall, 2011 on Northern Indigenous societies more generally).

For many Alaska Native communities, the history and identity of adaptability dates back generations. In *The People of Kauwerak* (1973), William Oquiluk, Iñupiaq of Point Hope, Alaska, tells the story of his people. I quote part of the story which is set a very long time ago, when people lived for five or six generations, "when the world was young" (p. 1) and people "did not work in their minds because they did not have to worry or think about how to survive" (p. xx). A great earthquake—previously unknown to the people—shook the ground, and the Iñupiat decided to live together in villages to support one another. Then,

> People began to look forward. They decided to organize before another disaster came to them… As time passed, nearly every year great earthquakes were coming. That made the people change their way of living. They learned they had to help one another in order to survive… The people began to see the earth changing from the earthquakes. In some places the ground was sinking and new lakes were coming. In other places the ground was coming up. This made people begin to think about other and bigger disasters coming. They began to prepare for such a thing. (p. 2)

In this telling, apocalypse—just four families survived "the first disaster"—creates society. The pre-disaster world was Edenic: warm and filled with abundance and health, and the summer sun shone year-round. But the people also "lived like wild animals" (p. 1) in relative solitude and without knowledge (or fear) of spirits or ghosts. The People of Kauwerak were brought together by this "first disaster;" only then did they create the first "tools, clothes, houses, boats, and weapons. Before the first disaster they did not need them" (p. 1).

To be clear, I never heard Oquiluk's narrative mentioned in either Sinuk or Pastolik—granted, only one of the villages is Iñupiaq. But I was referred to other, more recent stories of Iñupiaq survival, specifically *Two Old Women* (Wallis, 1993) and *The Winter Walk* (Cox, 2004), both of which originate in Norton Sound. Both tell the story of Iñupiaq women struggling to survive, more or less alone, in the unforgiving landscape. They are also both stories of ingenuity—or, to borrow Daniel Wildcat's term, "Indigenuity" (2023)—whereby the landscape becomes survivable, even generous at times, when humans persevere, collaborate, and invent.

In recent history, adaptation to environmental challenges is often braided together with adaptation to colonialism. In *The Winter Walk*, the pregnant protagonist is forced to undertake a life-threatening overland journey when her husband dies of a mysterious illness in the late 19th century. In one interview, a leader in Sinuk told me, "As a people, we've survived in this environment through adaptability. We got here because we were able to adapt with any situation, whether it was pre-whaling to the advent of schools and this and that, things like that."

The spirit of Indigenous resilience post-contact is underwritten by the identity of a much more ancient capacity to thrive despite enormous environmental challenges. Communities have met these changes with a penchant for innovation, such as how North Slope Alaskan Iñupiaq whaling practices have changed over time (Bodenhorn, 2000; Sakakibara, 2017), or how Sami reindeer herders view adaptability as a core part of Indigenous identity (Furberg et al., 2011). "Iñupiaq tradition," writes Bodenhorn, "needs to be thought about as the customary practice of change" (Bodenhorn, 2000: 25). Elizabeth Marino likens Seward Peninsula Alaska Native settlements to those around "the floodplains of the Nile"—"flexible enough to respond to high water without creating a disaster" (Marino, 2015: 51).

This ethos of survival-through-adaptation, although deeply anchored in the sense of collective identity and tradition, often finds expression in practical ways. For example, with faltering sea ice making it more difficult to hunt for whale, seal, and walrus, residents of Sinuk

mentioned a need for larger boats and correspondingly larger motors to safely venture farther offshore. As one leader in Sinuk told me: "people that are from here can survive anywhere."

What ties together these various ethnographic snapshots is a notable lack of despair—not, I suspect, because of a false sense of optimism, but because the idea of despair strikes residents of Sinuk and Pastolik as both useless and inappropriate to the task. Survival and adaptation are not matters of debate; they are certainties of existence. In 1991, the Northwestern Alaska Iñupiaq village of Kaktovik published a breath-taking document, "In This Place: A Guide for Those Who Would Work in The Country of the *Kaktovikmiut* [people of Kaktovik]." In it, they wrote of outsiders:

> They have told us to prepare for these terrible impacts, to list them, to mitigate them, to file for damages, to prepare our list of needs, to prepare for the awful onslaught, to prepare for savagery. Indeed, they have told us some frightening things.
>
> But, you see, we do not think that way. We are not used to being victims. We are not accustomed to telling others of our needs, as if we were children. Indeed, even our children are not like that. We are accustomed to being in charge of our destiny. We have long survived in this place where others would die in moments. We have survived here on our own, without anyone to look after us, and we have done that for longer than anyone can even imagine. (p. 4)

Subsistence as the dominant mediator of cultural and physical survival

None of this should be taken to suggest that Alaska Native communities in Norton Sound and beyond do not speak of existential threats. They do, but in my experience, existential threats almost always appear at the intersection of two interrelated hazards: first, the loss of subsistence practices; and second, colonial economic and/or bureaucratic pressures that precipitate or exacerbate that loss. (It is worth noting that, at least in present-day Western Alaska, Alaska Natives do not necessarily fear losing their land.)

Nowhere did I hear this existential fear more clearly articulated than at the 2022 Alaska Federation of Natives conference—by some accounts, the most important state-wide political event of any given year. At a side event discussing the Marine Mammal Protection Act (MMPA), an attendee rose to discuss sea otter hunting in Southeast Alaska. The MMPA prohibits marine mammal hunting by Alaska Natives with a blood quantum below 25%—meaning that no more than three-quarters of their ancestry is traced to European settlers. (It would be a gross understatement to say that blood quantum is a fraught topic in Native America; see Schmidt, 2011). This speaker's blood quantum exceeded 25%, but her children's

did not. “In my family, my children are not considered Alaska Native people, according to the MMPA,” she said. “*That’s an extinction-level event for us, for our people.*”

Outside of Alaska, “subsistence” carries a technical connotation. Within the state, it is a symbolic kaleidoscope. In Sinuk, I asked a community leader, “What are you most afraid of for the community?” After a long pause, she answered, “The loss of our language, loss of the way we live. The…” Another long pause. “I would be fearful of losing our—I know they don’t like to use ‘subsistence way of life’ anymore, but—the way we live. Loss of *identity* maybe.”

Merle Apassingok, an elder who lives in Gambell, a Norton Sound Siberian Yupik community on St. Lawrence Island, writes, "Subsistence is about existence itself. It is about the meaning of life. It is about pain, sorrow, and happiness. It is about satisfaction, renewal, and hardship. It is about humour. It is about discipline, knowledge, and wisdom, to name a few” (Apassingok, 1998).

It is difficult to understate the importance of subsistence to the preservation of identity in Sinuk and Pastolik. If anything in Norton Sound is a synecdoche, it is subsistence, which sustains family relations, traditions, language, and technologies (see Jolles, 2002, for a study of Gambell). The same themes have been echoed by studies elsewhere in Alaska, such as in Thomas Berger’s classic *Village Journey*. “For Alaska Natives,” writes Berger, “subsistence lies at the heart of culture, the truths that give meaning to human life of every kind. Subsistence enables the [Alaska] Native peoples to feel at one with their ancestors, at home in the present, *confident of the future*” (1985, p. 55, my emphasis). It is difficult to understate how tightly the idea of cultural survival is interwoven with the prospect of continued subsistence practices.

Within that context, existential threats in Sinuk and Pastolik appear to be almost always mediated by the ability to continue subsistence practices. And while climate change poses a threat to subsistence, residents are much more likely to speak of colonial bureaucratic and/or economic pressures as dangers to their ancestral hunting and fishing abilities. I asked a community leader in Sinuk if he has hope for the future:

> Yes I do, but in reality, that hope hinges on: *Are we going to get priced out of existence to where we completely lose who we are?* And do we end up, if we’re not able to adapt to that, do we sit and wait and become dependent on handouts again, which breaks your will even more? The climate doesn’t help, the regulations don’t help, nothing really—the way things are going, it’s getting hard.

As we sat together in the small staff room in the village school, he went on to talk about the threat posed by climate change, not *per se*, but in relationship to mounting (colonial) economic pressures. He offered this example:

> To be able to get an ATV, or even a boat or a motor; we've become reliant on those because of the conditions. You can't rely on natural wind power and stuff like that because of the changing conditions of sea ice… You have to be able to have a boat in order to be able to get out to those areas or to be able to manoeuvre in situations where you need to be faster; you need to get somewhere where a traditional [walrus] skin boat can't get. That's become ridiculously out-priced to get a new boat motor. A motor: you might get eight years, nine years out of it, if well maintained. A boat you might get up to ten years if you use it really well and if you're able to make repairs, but to come out of pocket right now you're looking at well over $20,000. And that's just something to be able to—it's just a *functional tool* that's necessary—not just for you as an individual, but a lot of times, how to be able to [feed] your family, your extended family.

This is the context of what it means to "*get priced out of existence*." The existential threat is not climate change, but the limited capacity to adapt to climate change as imposed by colonial structures.

This is a common theme beyond Norton Sound. It is clearly echoed in a study of Sami herders, which found they were "less concerned about the issues caused by climate change, but much more about their ability to adapt to those changes because of several other stressors and limitations" (Furberg et al., 2011: 8) The adaptation-limiting factors: "Issues such as decreasing grazing lands, poor economy, competing businesses and the Swedish national predator policy stand out as major threats to the adaptive capacity of reindeer herding" (Furberg et al., 2011: 10). In another study, a team of researchers sought to ascertain perspectives of climate change among Yolngu people (Australia), and were evidently surprised to find that the Yolngu interviewed were less interested in the topic than the researchers were: "Although we sought participants' views specifically on adaptation to climate change, in responding most participants continually returned to discuss current (non-climate-related) problems" (Petheram et al., 2010: 687). Climate change aids and abets the crime, but is framed neither as the perpetrator of violence nor as the weapon.

Environmental ethnography on the brink of catastrophe

Matthias Dörries points out that in the Enlightenment Era, science was called upon as an antidote to fear, and especially as a foil to the fire-and-brimstone messages received in Christian churches (2010). But in the 20th century, the institution of science was inverted—

where it previously played the role of consoler-in-chief, scientists are now turned to for bad news. “Though Enlightenment thinkers believed that scientists should know better than to be afraid themselves, now, scientists relying on modelling were confronted with possible futures, some of which were bleak. Increasingly, they stood up and made their worries known to politicians and the public” (Dörries, 2010: 888). Increasingly, scientists are chastised in public for being insufficiently alarmist about a range of issues, from climate change to nuclear energy to Covid-19. There is a remarkable tension that plays out within scientific institutions as practitioners search for consensus about how to address any given issue. In the earliest days of the Covid-19 pandemic, for instance, it was the role of scientists to prevent panic; later, it was the role of the same scientists to instil fear. Perhaps counterintuitively, researchers have found that experiencing an epidemic is positively correlated with distrust in science, rather than vice-versa (Eichengreen et al., 2021).

The persistent issues around how scientists communicate crisis arise in part from a lack of any possible “universal metrics of emergency” (Lynch and Veland, 2018: 63). The confusion among societies and bodies politic—including widespread disagreement over the nature and depth of the climate crisis, is exacerbated by a relative lack of reference points that are more stable than climate models. But how could there be a universal metric of emergency? “Apocalyptic” air quality in San Francisco is a normal December day in Ulaanbaatar. We are missing, I believe, a collective conversation on the end of the world, or at least on crisis: what would it look like, feel like, and how would we know when we were approaching it? A collective conversation does not require consensus, but at least can provide a cosmopolitical map of what Lynch and Veland term “the phenomenology of urgency” (2018: 7).

It is in this context that I suggest environmental ethnography as one possible tool for accessing and deriving valid insights about the state of socioecological systems—not as a principal or primary epistemology, but as an embodied one. Environmental ethnography could serve by asking questions that frame loss and destruction in more ontologically accessible ways than, say, a suspiciously round threshold of 1.5°C or 350 ppm CO_2. An environmental ethnography of Sinuk and Pastolik, for example, would find perhaps only one indicator of cataclysmic collapse: that of the Pastolik’s ultimately infrastructural coastal hazard. More broadly, however, food sources are attenuated but still sufficient; ecological systems are not on the brink of melt-down in the way that, say, coral reef ecosystems are; life, in short, continues (see Figure 11).

Figure 11: Life in Pastolik, continuing.

The same environmental ethnography performed 400 miles away on the Kuskokwim River might find a dramatically different landscape. Here, salmon runs have collapsed, and the Yup'ik communities that rely on them might be facing the sort of "extinction-level event" mentioned above. Environmental ethnography calls attention to the embodied and place-based knowledges that are ultimately the only appropriate tool with which to understand ecological crisis.

Conclusion: When climate change isn't a grand narrative

Residents of Sinuk and Pastolik were broadly unconcerned with climate change as a hyperobject—or, for that matter, with climate change as any sort of allegory. This parallels certain scholarship on Indigenous Northern communities and obliquely contrasts with other scholarship (Minor et al., 2023; Nuttall, 2011). One study of Sami herders found that they "did not consider climate change in itself to be the major threat to reindeer herding but rather to be yet another stressor" (Furberg et al., 2011: 8). But consider Ann Fienup-Riordan's work with

Yup'ik elders in Southwest Alaska, who "are as much concerned about changes in human relations as about changes in the so-called natural world" (2010: 65)—and, indeed, do not see these changes as separate. "They said that if people get bad, the weather will get bad following its people," said one elder (quoted in Fienup-Riordan, 2010, p. 66). To these Yup'ik elders, climatic changes are attributable at least in part to deteriorating social conditions and to the neglect of traditional practices. Here, we see a glimpse of connection—but neither allegory nor synecdoche—in which climate change is constructed as the consequence of broader social and cultural changes.

This viewpoint—wherein the crisis of climate change emerges through its overlap with non-climatic issues—fits into a broader pattern of Indigenous narratives of environmental change, which generally draw upon a more integrated ontology of humans and environments, and less of a segregated nature-culture dualism (Cronon, 1995). Following Fienup-Riordan, Chie Sakakibara writes of "collaborative reciprocity" in Iñupiaq culture, the notion that animals and humans "physical and spiritually constitute each other" (2017: 164). This practice reciprocity is itself key to an "adaptive strategy… which affords people a means of expressing their concerns about environmental changes, and of coping with and successfully adapting to such changes" (2017: 164). Bodenhorn's aptly-titled study of Iñupiaq culture, "It's Traditional to Change" (2000), can be thought of bidirectionally—humans and the environment *both* changing, together. Kyle Whyte describes an Anishinaabe "ecological system" (2022: 136) of reciprocity governing human-nonhuman relationships. These are not simply different perspectives, but different *problems* in their own right. "It is impossible to have different perspectives on the same problem," writes Marilyn Strathern of climate change, "for each perspective creates its own problematic" (Diemberger et al., 2012: 239).

The tenet of reciprocity is usually at odds with global Anthropocene-style apocalypse narratives. In the latter, nature is conceived of as a wounded animal, scared and therefore dangerous; or as an out-of-control machine, like a derailed train; or perhaps like a diseased body, which is "shutting down," organ by organ. These metaphors are generally at odds with the Indigenous worldviews mentioned above, in part because they all impugn the subjectivity of the environment; that is, the environment is something less than a bona fide collaborator. For some Indigenous perspectives, the situation is reversed. "Potawatomi people," writes Whyte, "often say that nonhumans have the capacity for knowledge but humans really do not" (2022: 129). Neither is "climate change" a stand-in for "the environment" writ-large. What appears to be a pattern in rural Indigenous climate scholarship is that climate change is not a

lynchpin or a meaning-making device; it is certainly not a grand narrative (Given and Jenson, 2008; Lyotard, 2005). Time and again, its most obvious manifestation is as a new facet of change to which Indigenous people must adapt (Carmona, 2022; Curley and Lister, 2020; Kashwan and Ribot, 2021; Marino and Ribot, 2012; Whyte, 2016, 2017, 2018, 2020).

It bears mentioning that this approach dovetails with more recent, social scientific studies of climate change communication, which regularly find that apocalyptic messaging around climate change is less effective (or even counterproductive) than more problem-and-solution, or even optimistic framings. Critics claim that these narratives are counterproductive for a variety of reasons (McNeish, 2017): they lead sceptics to regard activists as hysterical or fatalist; they generate negative affect and reduce the feelings of agency; they create cognitive dissonance leading to climate scepticism (Feinberg and Willer, 2011); and they superimpose a moralised framework onto a problem that, in addition to being ethical, is also deeply geophysical and political (Thornton and Thornton, 2015). Other scholars suggest that these discourses are useful in their own way—even *enjoyable* (Pohl and Swyngedouw, 2023)—to climate action, in particular by catalysing activists. One scholar even asserts that apocalypticism "remains the animating spirit of radical environmentalism" (McNeish, 2017: 1035). Both can be true: apocalyptic narratives can exert a strong, seductive pull on some subjects while repelling others. And the issue of efficacy quickly turns to long-standing political science questions about whether and how radical rhetoric activism advances or stalls progress.

In experimental settings, psychologists and sociologists have shown that describing climate change in apocalyptic terms generally has a negative or neutral impact upon participants, whereas describing climate change in positive terms increases self-reported belief (Feinberg and Willer, 2011). One group of psychologists summarise, "Desensitization may similarly occur for repeated exposure to negative emotional messages about climate change, and diminish the beneficial effects of emotions on acting to address climate change" (Bloodhart et al., 2019: 2). Instead, studies have found support for bringing climate change knowledges into more intimate, bounded, and solutions-oriented frames. In one experiment, participants expressed a greater willingness to donate money to help a single, named polar bear than to save polar bears generally (Markowitz et al., 2013). Even beyond these questions of instrumental efficacy, there are second-order issues with pursuing political communication with such dire frames. "If the patterns of argument typical of religious prophecy are also observable in any public discourse that anticipates or predicts catastrophe, then we should be skeptical of the

public's ability to reasonably evaluate any appeal to urgency in the face of disaster," writes Stephen O'Leary (1997: 310). Scepticism is also due based on the political hazards of governing in presumed states of emergency, which create pretexts to curtail rights and liberties, and may be coopted by other agendas (Enzensberger, 1974; Hulme, 2019)By and large, the science of climate change communication supports exactly the sort of *situated knowledges*—or storytelling, if you prefer (Sou, 2023)—for which Haraway advocates (Haraway, 1988).

Of course, not all Indigenous climate activists follow an intimate, grounded approach to climate change communication, eschewing synecdoches and hyperobjects. Inuk activist and writer Sheila Watt-Cloutier, for example, asks, "If we cannot save the frozen Arctic, how can we hope to save the rest of the world?" (2015: xxvi) This line of questioning is emblematic of what Chie Sakakibara, writing of Alaskan Iñupiaq communities, calls "'*muktuk* [whale skin and blubber] *politics*,' an Iñupiaq revitalization of their cultural identity through participation in international debates on climate change, whaling, and human rights" (2017: 175). *Muktuk* politics involves a degree of experimentation, and some planetary narratives are deeply resonant in international fora such as the UNFCCC. But Iñupiaq subsistence activism is not necessarily the same as climate activism. In the instance of subsistence—say, the right to harvest marine mammals—the problem is the antithesis of the solution. That is, the prohibition of subsistence hunting is the central problem; the granting of rights for subsistence whaling is the solution. With climate change, the situation is fundamentally different. Local and regional environmental change is the problem. In one framing (Watt-Cloutier's, for example), stopping greenhouse gas emissions is the solution. But over the entire course of my research, I did not find a single instance of a rural Alaska Native research participant mentioning greenhouse gas emissions. Rather, although the conception of the problem remained the same, the conception of the solution was tangential: investment in infrastructure, relocation of imminently threatened communities, financing for other adaptation mechanisms, and a host of cultural practices to protect knowledge and tradition from slipping away.

How these different veins of activism emerge and interact is beyond the scope of this chapter, but I raise it to acknowledge that Indigenous Peoples are in no way monolithic in how they relate to climate change—or to any other issue, for that matter. Future scholars may find it fruitful to explore differences in attitudes toward climate change between urban Indigenous communities and rural Indigenous communities. (For an American perspective on the topic, see Spokane author Sherman Alexie's essay, 2023).

Meanwhile, our scholarly shelves groan under the weight of texts about how climate change has inaugurated some new way of understanding the human place on planet Earth, or how "Hyperobjects compel us to think ecologically, and not the other way around" (Morton, 2013). Which leads to a curious question: is ecological thinking global thinking? And is local thinking non-ecological?

Across Sinuk and Pastolik, participants spoke to me of "the outside world"—which was more of a political-economic space than a physical-ecological one. (A similar discourse of "the outside" also appears in Furberg et al., 2011.) But the ecology of these Indigenous homelands was evidently vast, nuanced beyond my capacity to record. As social science and humanities scholars, we of all people should be wary of the planetary representations that climate change continues to underwrite. "I am arguing," wrote Donna Haraway, four years before the founding of the UNFCCC,

> for politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims. These are claims on people's lives. I am arguing for the view from a body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity. Only the god trick is forbidden. (Haraway, 1988, p. 589, my emphases)

I worry that the language of hyperobjects and apocalypse may be more of a "god trick" than we realise. Why has climate change given us a moral and scholarly permission structure to turn away from the principles of contingency and embodiment that were so central to the cultural and feminist turns?

None of this is to invalidate the claims of Chakrabarty, Morton, Latour, or other brilliant observers of the global nature of the climate crisis—which is, of course, a global phenomenon, in that the impacts of greenhouse gasses are not localisable to their point of emission. But I contend that many scholars have basically neglected to attend to climate change with a respect for pluralism and for *situated knowledges*, with neglect for the importance of "learn[ing] in our bodies, endowed with primate color and stereoscopic vision… in order to name where we are and are not" (Haraway, 1988: 582). Indeed, the struggles with which we are presently dealing are the same as those of the young people who feel that "humanity is doomed." Some of us are also lacking a sense of place, or seeking, I suspect, for a sense of belonging on a planetary scale. It's no wonder that we should also feel hopeless.

7. On Dread: The Intimate Politics of Climate Apocalypse

Introduction

A broad interdisciplinary consensus has emerged around the almost orthodox viewpoint that the climate crisis is leading the world into unprecedented global tragedy. For humanities scholars and social scientists seeking to understand the social consequences of these geophysical changes, the prospect of impending apocalypse is often taken at face value. In this framework, climate activists are responding rationally to an existential threat; the fear, grief, and anxiety suffered in particular by young people in the Global North is appropriate; and we must begin planning for a darker, more hostile world. In this vein, Déborah Danowski and Eduardo Viveiros de Castro warn, "Each day that goes by confirms the impression that we are already living, and shall live more and more, in a radically diminished world" (2017: 120). Bruno Latour voices a similar concern: "We have to agree finally to engage for real in an apocalyptic discourse *in the present time*" (2017: 194). We—by which I mean both society and scholars—are increasingly inhabiting a zeitgeist of dread.

With this chapter, I want to accept Latour's invitation obliquely, and engage *for real* in a meta-apocalyptic discourse. I do not wish to talk about climate apocalypse narrowly nor scientifically, but rather about how the imagination of disaster operates within contemporary, urbanised, digital, and post-industrial societies. In this narrow approach, I will not discuss the production of scientific and popular knowledge about climate catastrophe. I leave these important questions to historians of science and media scholars. Instead, I wish to address the popular understanding and re-articulation of these knowledges, and how they have become interpreted as prophecies of utter disaster, foreclosing upon the possibility that the future could be more liveable than the past—exemplified by the notion of the Anthropocene (Haraway, 2015; Palsson et al., 2013). In asking these questions, I raise a simple proposition: that the subjective experience of living at the precipice of planetary calamity may partially serve the covert function of assuaging the malaise and alienation that are endemic in affluent, secular, and urban societies. If this proposition is true, we (scholars, activists, humans) must critically

confront climate dread, lest we confuse the fantasies of science fiction with the jagged terrain of real life, in which our fates are not nearly as interconnected as we might like to believe.

In what follows, I establish some background to the social context of climate apocalypse: its proponents, its critics, and the social construction of risk. Next, I contextualise narratives of climate apocalypse within the genre of science fiction, and contextualise science fiction within modernity, drawing in particular on the prescient work of Susan Sontag. Then, I explore how apocalypse narratives interact with the post-industrial human condition, drawing upon Hannah Arendt's articulation of alienation. Finally, I propose that climate dread serves for some as a sense-making device by reconnecting individuals with history and by re-establishing the public realm of political belonging: a salve against contemporary alienation. I conclude by suggesting that the dark mythos of a shared global cataclysm raises pressing political issues for those of us (still) committed to the possibility of a good Anthropocene and the long-term viability of more-than-climate justice.

On the social construction of disaster

I am not the first to suggest that narratives of cataclysm tug at something in the modern psyche. "How can we think in times of urgencies," asks Donna Haraway, "without the self-indulgent and self-fulfilling myths of apocalypse…?" (2016: 35). To answer that question, we must first zoom out from our present era of accelerating environmental disaster, and to a more secular perspective on whether, and how, these visions of dark futures might resonate so loudly in contemporary times. Put differently, we must ask whether dread of climate apocalypse, in addition to producing cognitive dissonance in certain subjects (Frantz and Mayer, 2009) also gives rise to cognitive (or perhaps spiritual) *resonance* in others.

In the late 1950s, the United States launched Project Plowshare, a program tasked with finding peaceful, civilian applications of nuclear "devices,"—i.e., explosives. Government employees looked across the nation for opportunities to repurpose nuclear weapons for infrastructure development. The proposed projects included deep-water ports, canals, railways, and hydraulic fracturing to recover shale gas—nuclear fracking. In an era of lusty infatuation with fission technology, US President Dwight Eisenhower announced to the UN General Assembly in 1953, "The United States pledges before you… to find the way by which the miraculous inventiveness of man shall not be dedicated to his death, but consecrated to his life" (Ramberg, 2003). Plowshare oversaw many nuclear tests but never achieved any of its

proposed projects. Shortly after its founding, U.S. public opinion on nuclear technology transformed from awe and ambivalence to abject terror.

The social construction of risk is a fast-moving phenomenon. In the span of a generation, the Global North's fascination with nuclear technology turned almost inside-out. Nuclear annihilation came to feature prominently in films, literature, and politics. Susan Sontag, writing in the 1960s, describes

> the trauma suffered by everyone in the middle of the 20th century when it became clear that, *from now on to the end of human history*, every person would spend his individual life under the threat not only of individual death, which is certain, but of something almost insupportable psychologically—collective incineration and extinction which could come at any time, virtually without warning. (224, my emphasis)

In this prediction of the future, Sontag was categorically mistaken. In the contemporary Global North, relatively—indeed, worryingly—few people worry about the persistent threat of nuclear cataclysm. But the hazard has hardly diminished. Since the publication of Sontag's essay, India, Pakistan, Israel, and North Korea all became nuclear-armed nations; more recently, Russia has engaged in nuclear sabre-rattling during its full-scale invasion of Ukraine. There are an estimated 13,000 nuclear weapons stockpiled around the world (granted, roughly one-third of the stocks in the 1960s)—more than enough to wreak such havoc upon the climate and the biosphere that would fossil-fuelled climate change would seem positively mild by comparison (see Sagan, 1983, for a sobering review). But while the political and technological dangers of nuclear war have endured, the corresponding sense of fear has gradually receded from the public horizon. A 2023 article in *Politico*, titled "The Dangerous and Frightening Disappearance of the Nuclear Expert," describes the thinning ranks of professionals trained to de-escalate a nuclear confrontation. "The shock and trauma of the nuclear age has faded," an expert told the magazine, adding, "there are other existential threats out there." In 1991, Andrew Ross observed that "apocalyptic fears about widespread droughts and melting ice caps have displaced the nuclear threat as the dominant feared meteorological disaster" (8). Clearly, the perception of imminent apocalypse can wax and wane rapidly—something Sontag failed to anticipate when she wrote that nuclear trauma would endure, "from now on to the end of human history" (1961b: 224) But Sontag is wise to note that the nuclear hazard itself is not the source of the "trauma;" rather, the trauma is the realisation of vulnerability—"*when it became clear*." The threat is not traumatic until it is recognised and takes hold in the collective and individual psyche.

Western societies are notoriously limited in our ability to make accurate assessments of the hazards around us. Paul Slovic, in a classic article in *Science*, writes:

> Difficulties in understanding probabilistic processes, biased media coverage, misleading personal experiences, and the anxieties generated by life's gambles cause uncertainty to be denied, risks to be misjudged… and judgments of fact to be held with unwarranted confidence. Experts' judgments appear to be prone to many of the same biases as those of the general public. (1987: 281)

But Slovic's explanation is a partial apprehension. Risk is not as simple as a subjective appraisal; rather, it is a central pillar of how we make sense of our worlds, and, by extension, an animating force in politics. The relationship between risk and society is dialogic. Risk is not just how we describe the world; it is equally about how we understand our place within it. In many instances, risk is both a probability of dying and a reason to live. In the case of war, for instance, the threat from a hostile nation creates a sense of vulnerability for citizens but also a sense of purpose for soldiers (Junger, 2017). And the outcomes of these personal relationships to risk go on to shape political and social futures. For instance, the US "War on Terror" was supported by some Americans' probabilistically remote fear of being a victim of a terrorist attack. In turn, this fear was leveraged to launch a 20-year military incursion into the Middle East and erode certain individual liberties for Americans.

In any society, the feeling of vulnerability speaks loudly to the individual and social psyche. The fact that it was inconceivable to Sontag in the 1960s that the world might ever move beyond nuclear terror—in just two generations, no less—illustrates the importance of looking critically at our contemporary imaginations of apocalypse. Put simply, we must recognise the social context that frames our sense of risk (and safety), and how the rise and fall of our anxieties must not be taken as rational responses to metaphysical truths, but rather as social constructions that are part of ongoing political and cultural conversations.

These critical approaches to understanding risk are rarely applied to climate change. Instead, the state of climate dread is mostly taken for granted, as though it were the only rational response to the present conditions of human life. (Increasingly, the prospect of climate apocalypse is exhibiting qualities of Wittgenstein's hinge propositions: a statement that cannot be called into question without impugning the sanity or motives of the questioner.) It is particularly curious that despite such well-articulated critiques of the production of scientific knowledge (e.g., Latour, 1993), humanities scholarship on climate change has been relatively mute on how this knowledge production undergirds our sense of accelerating climate disaster.

Why? Perhaps we feel obliged to continue to raise the alarm, or to ask why relatively few citizens in democratic nations seem appropriately terrified. Latour asks, "Why do ecological questions not seem of *direct* concern to our identity, our security, our property?... We react as one to the slightest terrorist attack, but the notion that we are the agent of the sixth extinction of terrestrial species evokes only a jaded yawn" (2017: 191).[9] Latour may have been correct to a certain extent, but climate change today evokes much more than a jaded yawn, at least among certain sections of humanity. A recent survey of 10,000 young people (ages 16-25) across six continents found that 59% were "very or extremely worried" about climate change. More tellingly, 56% responded "yes" when asked if, with respect to climate change, "Humanity is doomed" (Hickman et al., 2021). While such profound anxiety has certainly not translated into political action, the dread of climate change, particularly among young people, is a widespread phenomenon. An intercontinental youth mental health crisis (Romeu, 2021), often attributed in part to climate change, has also attracted widespread attention from clinicians, scholars, and news media. Tellingly, Timothy Morton uses the same term as Sontag to describe climate change as "the ecological *trauma* of our age" (2013: 9, my emphasis), a sentence printed one page after a photograph of the 1945 Trinity test, the first detonation of an atomic bomb.

Perhaps scholars became so fixated on the lack of attention and urgency that climate change received in the first and second decades of this century that we have partly overlooked the profound feeling of utter dread that afflicts so many people in the world today. I say "the world" because this sense of dread is not localisable to the North or South, nor the East or West, nor any other commonly-invoked geopolitical cleavage. The aforementioned study of youth found that, of the 10 countries surveyed, India had the highest rate of respondents agreeing that "Humanity is doomed."

Noting that depictions of climate change are at the heart of widespread feelings of pre-apocalyptic vulnerability and hopelessness (at least among young people), I offer what I hope is an uncontroversial proposition: there is a social context to the perception of climate disaster that mediates our sense of present and future environmental calamity. Moreover, we are unlikely to understand the ongoing environmental and social crises unless we critically examine how the social context of climate dread inter-operates with science and policy. Or,

[9] I quote from Latour's *Facing Gaia: Eight Lectures on the New Climatic Regime*, adapted from the 2013 Gifford Lectures. In the time since Latour's original lectures, anxiety about climate change (particularly among young people) has increased dramatically.

framed more disobediently: we must be open to the possibility that—like Sontag—what terrifies us all today might, in two generations' time, be a dull ache in our collective psyche. (Imagine that *The Day After Tomorrow* could someday seem as dated as *Dr. Strangelove.*) Should that happen, what might future historians say about our present fear of climate disaster, and how it resonated with the contemporary conditions of human life on Earth?

The Allure of Apocalypse

Studied as a phenomenon in its own right, dread reveals a great deal about the desires, beliefs, and anxieties of humans in the modern age. If that sounds grand, consider that it is hardly grander than the magnitude of the political discourse itself. Climate change has lately become the primary lens through which hundreds of millions of people have come to understand the present and future, on both intimate and planetary scales. It has fundamentally altered the modern understanding of what it means to live on a planet that no longer appears as passive and tolerant as we initially thought—what Isabelle Stengers calls the intrusion of Gaia (Stengers, 2015; see also Ghosh, 2017). Ultimately, our relationships to the hazards of the new climate regime are discursive—as we talk about the future of humanity, we also enact a present-day humanity. *Who is vulnerable? Who is responsible?* These questions swirl about in political and philosophical discourse. But to understand the hazards properly, we must locate the feeling of vulnerability not simply in the production of scientific knowledge about the geophysical world—what "Science says" will transpire in the decades to come—but also in our individual and collective selves. Just as fears of nuclear annihilation and terrorism reflect and express the features of their social and historical contexts, climate dread also has something to teach us about ourselves.

While ideas about the end of the world are ancient (Lynch and Veland, 2018), the equation of "the world" with planet Earth is a decidedly modern development, for it was only recently possible to conceive of the world or humanity as a contiguous whole. Arendt writes of "the transformation of mankind, which until our own time was an abstract notion or a guiding principle for humanists only, into a really existing entity whose members at the most distant points of the globe need less time to meet than the members of a nation needed a generation ago" (1958: 257). "Modern" humans, Arendt writes, are distinguished from their predecessors by a sort of planetary citizenship. When she points to "three great events" that inaugurated the "modern age and determine[d] its character," (1958: 248) two of the three are primarily

concerned with the compression of the planet into a single ontological whole: the invention of the telescope and the exploration of the whole of earth's surface.

If the compression of the earth into a single image (and, finally in 1966, a single photograph taken from space) marked the process whereby modern humans became inhabitants of the entire planet (as opposed to a nation or a landscape), then the development of thermonuclear weapons turned this story of prospective unity into one with a decidedly sinister potential. The step from fission bombs to fusion bombs increased the yield of atomic weapons by three orders of magnitude, from kilotons to megatons. In 1961, the Soviet Union detonated a bomb with a yield of roughly 50 Mt, 3,500 times more powerful than the bomb dropped on Hiroshima just sixteen years earlier. First, Moderns learned of the world as such; then, they learned that this world could be obliterated, conceivably in the span of a single afternoon.

The 20th century became, for the first time in human history, an era when a broad swathe of humanity was both captivated and haunted by the prospect of utter annihilation. In the process, the imagination of disaster tapped into a dark seduction that extends at least as far back as early modernity (Freud, 1920; Kierkegaard, 1980: 44). Sontag also writes of "the lure of such generalized disaster" (Sontag, 1961b: 215). And Erik Swyngedouw describes "an unquenchable fascination for the [climate] dystopia-to-come: images of scorched lands, disintegrating icebergs, fleeing people, hungry faces or an unliveable environment" (2023: 20). Critically, and following Freud and Kierkegaard, these are anxieties, which are different from fear in that they are diffuse and do not relate concretely to a particular object (Garrett, 2021).

This seductive unknowability cuts a clean distinction between nuclear anxiety and climate dread. In the case of nuclear apocalypse, the mechanisms of death are easy enough to articulate: acute radiation poisoning, starvation in an ensuing nuclear winter, or simply instant incineration. The images from Hiroshima are blasted into our minds alongside the monochrome or ember-red photographs of mushroom clouds. The flash of light brighter than the sun, the rush of heat, a moment of searing pain—then nothingness. Although the totality of the bomb might be unimaginable, the way in which the bomb kills us is startlingly simple. Similarly, in cases of present or recent cataclysm—e.g., the genocide of American Indians, the Nazi genocide, and the 2012-16 siege of Aleppo—nobody had to *imagine* how they might die. But climate change—at least as it's experienced in most urban landscapes—requires an imaginative journey to travel from the present day to apocalypse. When climate activists hold signs reading, "You'll die of old age / I'll die of climate change," they are, in many instances, undertaking a substantial imaginative task. What might their death certificate say? The options—climate-

induced conflict, zoonotic disease, drowning in a storm—are not immediately apparent from the protest venues along Central Park or Trafalgar Square. "In observing children," writes Kierkegaard, "one will discover this *angest* intimated more particularly as a seeking for the adventurous, the monstrous, and the enigmatic" (1980: 42). This sort of adventure and enigma is precisely what is explored at length in climate fiction, a genre mostly dedicated to the vivid imagination of apocalyptic and post-apocalyptic futures. Cli-fi features adventurous, even picaresque tales. For example, Charlotte McConaghy's bestselling novel *Migrations* (2021) features a wayward academic joining the colourful and clownish crew of a fishing boat as they sail north, searching for the world's last Arctic tern, at a time when the world's ocean fish have largely vanished. It is fantastical at its core. "It is as though in literary imagination climate change were somehow akin to extraterrestrials or interplanetary travel," writes Amitav Ghosh (2016: 7).

Ironically, science fiction entered a golden age precisely as the threat of nuclear annihilation came to dominate the Western psyche. But science fiction in the 20th century served an entirely different function than cli-fi. Whereas cli-fi enacts the dark fantasy of climate apocalypse, nuclear-era sci-fi served the purpose of distracting audiences from the real terror of the atomic threat. "We live," writes Sontag, "under continual threat of two equally fearful, but seemingly opposed, destinies: unremitting banality and inconceivable terror" (1961b: 224)—modern urban life and nuclear war.

> It is fantasy, served out in large rations by the popular arts, which allows most people to cope with these twin specters. For one job that fantasy can do is to lift us out of the unbearably humdrum *and to distract us from terrors*—real or anticipated—by an escape into exotic, dangerous situations which have last-minute happy endings. (my emphasis) (1961b: 224)

Sci-fi in the nuclear era generally did not concern a hot shooting war between two human nations. Instead, it focused on alien invaders or monsters. These 20th century science fiction stories often involved the world's nations transcending their disagreements to bond together, realising a dream of planetary peace through their combined struggle against a single, nonhuman foe. In sci-fi, the storyline is morally uncomplicated, with a great ontic chasm separating the good guys (us) from the bad guys (them).

But hot, intra-human nuclear war was never suitable for sci-fi. Americans could never fully dehumanise the Soviets, or vice-versa. The mechanisms of obliteration were alarmingly obvious. The moral dimensions were murky and tragic—the thought of incinerating Moscow

would never convey the moral satisfaction of watching Luke Skywalker destroy the Death Star. Tellingly, the film best associated today with the realpolitik of nuclear war, *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb,* is not science fiction at all. It has no fantastical elements, but instead explores a deadly serious (and technologically feasible) possibility: that either the Soviet Union or the United States would build a "doomsday device" that would make mutually assured destruction absolutely certain. (Indeed, such devices had been contemporaneously proposed by the likes of Leo Szilard and researchers at the RAND Corporation.) Although *Dr. Strangelove* is darkly funny, it requires no serious imaginative work whatsoever; it is an austere war film twisted around satire, not fantasy.

Sci-fi was a libidinal escape from the moral complexity and technological certainty of nuclear war. It was also a respite for the ecological anxieties of the 1970s, which usually brought together a complex set of causal mechanisms to describe planetary collapse, including overpopulation, pollution, deforestation, and resource depletion (Enzensberger, 1974). Climate dread, by contrast, is already a science fiction story. It involves a single technology, invented for a mix of good and greed, gone terribly awry. (Notably, the climate crisis has deflected attention away from issues of population, point-source pollution, deforestation, resource depletion, and other environmental issues.) The climate narrative involves a group of heroic scientists trying to raise the alarm. World leaders gather at the UN to deliberate in hushed tones—some nations seek to profit from this cataclysm. The good guys speak up, underdogs pitted against the entrenched and elite forces of evil (Big Oil). The first pulses of disaster begin to ripple across the planet. Sontag lists each of these archetypes as core elements of a science fiction film (1961b).

It is precisely because climate futures are deeply unknowable that they bear the libidinal allure of generalised disaster. Amitav Ghosh and Timothy Morton have tried to explain the unknowability of climate change by calling upon the *uncanny* or *hyperobjects* (Ghosh, 2016; Morton, 2013). Climate change is both of those things, but for a substantial subset of humanity, it is also unknowable because it is *not really here yet*. I can walk from my desk in Cambridge into the countryside on a perfect fall day and spend the entire morning in a bucolic landscape that feels—that *is*, in some partial sense—at ease. To re-think my existence in this climate-privileged corner of the planet as existentially vulnerable requires me to undertake a leap of imagination far into the future. A plague arrives. Or tornadoes. Or a great rush of climate refugees. Climate change summons "the emergence of an enigmatic future" (Latour, 2017: 2);

not a clear one. Science fiction and reality have collided in ways that were possibly unthinkable until recently.

Apocalypse as a sense-making device

In many of the world's urban and affluent spaces, climate change is mostly not experienced as an invading army or a tsunami, where the stakes are violently clear long before disaster strikes. In this way, apocalypse is a multi-scalar synecdoche, the prow of any number of convictions (or fantasies) about humanity, the world, history, the future, and possibility (Danowski and Viveiros de Castro, 2017).

The imagination of disaster requires that we ask, in the broadest sense possible: why are Moderns drawn to these science fiction-style narratives of collapse, whether on the silver screen or on the front page? Today, the terrifying prospect of nuclear war has largely (if irrationally) faded from individual and collective psyches. The unremitting banality, however—"the depersonalizing conditions of modern urban life" (Sontag, 1961b: 223)—has endured, and even deepened in recent years, as the scale of urban humanity has itself been dwarfed by the vast digital world.

If climate doom does not exist to distract us from another, simpler danger, then why does it haunt us? Erik Swyngedouw and Lucas Pohl write about "enjoying climate change," leveraging Lacanian psychoanalysis to suggest "a libidinal attachment to sacrifice" (Pohl and Swyngedouw, 2023: 5) at the core of climate activism. In a different vein, Hans Enzensberger accuses catastrophic environmental discourse of providing cover for neo-totalitarian and anti-capitalist political agendas (1974). I volunteer that Enzensberger's critique is too sinister while Pohl and Swyngedouw's thesis is too wrapped up in the interior of the self—following Viktor Frankl's critique of psychoanalysis as unduly reducing the human psyche to "a reservoir of repressed instinctuality" (2000: 31). What I see in climate activism, in the powerful identity-forming behaviours and norms of groups like Extinction Rebellion, is a cohesive force that exists beyond the boundaries of the individual mind and operates at a collective level. At a time of unprecedented alienation, climate apocalypse functions as a sense-making device by providing a narrative of history, values, self-importance, and community. In the process, climate change serves as a salve to the bourgeois alienation that characterises post-industrial modern society.

Hannah Arendt's description of modern alienation in *The Human Condition* revolves around a central observation: that for most humans living in mass society, the *public realm* has dissolved with the rise of modernity. For Arendt, the public realm was the venue wherein citizens found meaning and purpose that extended beyond their immediate selves and families. The public realm consisted of politics, art, acts of public service—any activity that connected the individual to a world in which their choices influenced the future beyond their own lifetime. "Without this transcendence into a potential earthly immortality, no politics, strictly speaking, no common world and no public realm, is possible" (Arendt, 1958: 55). Crucially, the public realm was shared, held in common among members of a society, and undergirded the idea of the human as a *zoon politikon*—a political creature. The loss of the public realm, for Arendt, is the core of the alienation, or "the loss of the world," that defines modern society. As a result, Moderns exist in "a society of laborers"—individuals whose greatest attachments are to their immediate families and the provision of physical needs. This phenomenon was beautifully rearticulated half a century later by Rebecca Solnit, who writes of Americans, "we tend to think of political engagement as something for emergencies rather than… a part and even a pleasure of everyday life" (2016: 62). Both Arendt (explicitly) and Solnit (indirectly) yearn for the values of the Ancient Athenians, for whom political participation was the highest expression of freedom (Arendt, 1958: ch. 2).

For Arendt, echoing Marx (Bowring, 2011: Ch. 4), world alienation posed an urgent threat. The loss of the public realm opened the door for totalitarian movements and the rise of mass society. "What makes mass society so difficult to bear," she diagnoses, "is not the number of people involved, or at least not primarily, but the fact that the world between them has lost its power to gather them together, to relate and separate them" (1958: 52–53).

That dread could catalyse pro-social civic action might not have occurred to Arendt, who tended to focus instead on how worldlessness created an opening for totalitarianism and demagoguery. Notably, the existential anxiety of the Cold War was buried in political impotence. The politics of nuclear annihilation were anti-political, shrouded in secrecy. It rendered individuals powerless in the face of immense danger. Agency in the Cold War hinged on concentrations of power in government offices and spheres of uranium. At the height of the Cuban Missile Crisis, dread might have catalysed concern for a common world, but it hardly created a space for the common person to do something about it. The spectre of nuclear annihilation only deepened the sense of alienation from the public realm, and by extension, worldlessness. But climate apocalypse has no shadowy generals or launch codes in briefcases.

There are no missiles to intercept or atoms to split—just a mundane, invisible gas spilling from tailpipes and power stations. In today's existential crisis, both cause and effect are atmospheric and diffuse.

Climate dread constructs a future premised upon a myth of shared planetary destiny, in which the decision of each Modern matters—often with reference to intimate behaviours like choice of diet or whether to procreate. In a curious twist, climate dread takes Arendt's opposite actions, *labour*, *work*, and *action*, and braids them together. (Labour sustains human bodies; work makes the world liveable; action affirms the world and human freedom within it.) With climate dread, choices that fall squarely within peoples' private lives are brought to bear upon the public realm and made utterly political. The most intimate choice a person (or two people) can make—whether or not to have children—is now recast into a grand political gesture, *e.g.* Meehan Crist's 2020 essay, "Is it OK to have a child?"

Climate dread has staged a stunning transformation. The world that Moderns lost—"the eclipse of a common public world" (Arendt, 1958: 257)—has been returned to us. And it returns not at the level of the nation-state or the tribalism that breeds totalitarianism; instead, the spectre of democratised planetary apocalypse has rebuilt the public realm, given us all something to hold desperately *in common*, and a means through which to return to the *zoon politikon*—to the sense that our lives and our choices will matter on a generations-long timescale. The now-popular narrative that 21st-century Moderns are living at the most important time in human history is a powerful testament to how climate dread has not merely restored the world from alienation, but provided an arc of planetary history, past and future, in which Moderns may participate. It is precisely because of the uncertainty of climatic futures that we can stake our identity in this participation—recalling Swyngedouw and Pohl's *jouissance* of sacrifice, but with the caveat that the joy exists not merely in some libidinal corner of the self, but in the capacity to reconnect with the public realm: politics, community, and land.

Against a shared fate

There is a profound contradiction at the core of the experience of climate change. Climate change is experienced in two ways. First, it is experienced intimately, in human flesh and bodies, and corresponding livelihoods. I feel the heatwave; I flee the hurricane. Critically—and I will revisit this momentarily—I cannot feel the heatwave and the hurricane

at the same time. The second way climate change is experienced is through stories, media, and a general affect that is inherited through others' experiences, images, or predictions. In this second modality, climate change is experienced as a tragedy that is not readily at hand, but which nevertheless haunts the present with a powerful immediacy. For comparison, consider how the 9/11 attacks were felt deeply across the entire United States (and beyond), even by those without any specific attachment or connection to New York City or the victims who perished. In this second modality, climate change is distinguished by the quality of being *everywhere*. It is "nonlocal," as Morton identifies, but not just for the reason that climate change is impacting the entire planet. It is also nonlocal because this modality of experiencing climate change is not attached to a specific threat, but rather to a tangled morass of *all* threats: extreme weather, disease, conflict, food insecurity, migration. This fear of climate change is global, and by extension, placeless. It is without geography: everywhere and nowhere at the same time. This fear is experienced most clearly when we scroll through our news feeds and learn of distinct events—a drought, a hurricane, and collapsing ecosystems—all in different locations across the world, in the course of a single sitting. We think to ourselves: *the world is really falling apart*, even as the birds sing and the sun shines gently outside.

In *Everything, Everywhere, All at Once*, the film's twenty-something-year-old antagonist goes mad when she slips into a tear in the fabric of the multiverse and experiences "everything, everywhere, all at once." The ensuing feeling is overwhelming. So it is with climate change on a digitally-connected planet: we tune into the darkest moments (climatic and otherwise) on any given day. And on any given day on planet Earth, there will be a coterie of un-natural disasters unfolding in various places. The total sum of planetary climatic change is indeed a multifaceted cataclysm—but that sum only exists in an everywhere-and-nowhere totality. This discourse is made particularly obvious in the not-quite-glib phrase: "the planet is on fire," or in the title of David Wallace-Well's bestseller, *The Uninhabitable Earth*.

Some theorists and critics have argued that this panoptical perspective is precisely what the climate crisis requires. "Global warming," writes Timothy Morton, "is nonlocal: it's massively distributed in time and space." In response, we must learn to see with multiple visions—with the insect's compound eye—to take full stock of the interlocking planetary catastrophe. is driving us mad. Isn't this precisely the "god trick" (1988: 581) that Donna Haraway decries? Bearing witness to climate change is a profoundly technological enterprise, made possible by aerial and satellite imagery, live feeds of reporters standing before burning forests, and a multitude of moving and still images recorded and streamed in real-time from

the powerful computers we carry in our pockets. “Vision in this technological feast becomes unregulated gluttony,” (Haraway, 1988: 581). We look chiefly to these images to confirm and bolster our sense of impending planetary disaster. But looking everywhere at once is maddening and dislocating. It should come as no surprise that slipping into the god trick drives us a little bit insane, letting us feel as though the world were truly ending, and that humanity were truly doomed in some unitary whole. This is how the divide between science fiction and real life collapses.

But climate change is not *everything* or *everywhere* or *all at once*, but rather *this* and *there* and *now*—and just as often it is *not here* and *not now*. Most of the time, most of the place, climate change is a probability of catastrophe, an unusually warm or rainy day, or a set of behaviours and politics. Its existence is like the weather—in many cases, it is the weather—in that it changes constantly, and our experience of it is characterised by uncertainty and unreliability. “We experience specific effects of the crisis but not the whole phenomenon," (2009: 220) writes Chakrabarty. (Consider for a moment that nuclear war was visible primarily as a threat and not as an effect. And even the threat—the nuclear submarines, the covert silos, the bombers cruising at 34,000 feet above sea level—were covert. Save for the horrific attacks on Hiroshima and Nagasaki, and the radioactive fallout that fell near test sites, there was no direct experience of nuclear apocalypse, only its haunting spectre.)

The planetary (science fiction) narrative of climate change cannot acknowledge that the impacts of climate change are grossly heterogeneous (Ahuja, 2017; Danowski and Viveiros de Castro, 2017; Kashwan and Ribot, 2021). We are emphatically not “all in this together”—“we” as humanity and also in the broader sense of life. Although climate change touches us all at some time, in some place, we cannot conflate the planetary scale of the global phenomenon with a shared vulnerability that would endorse dreams of planetary solidarity—the turning point in the science fiction story where humanity bands together to save the day. Chakrabarty seems to yearn for this solidarity when he writes that, “there are no lifeboats here for the rich and the privileged (witness the drought in Australia or recent fires in the wealthy neighborhoods of California)” (2009: 221). Let’s witness. The wealthy denizens of fire-razed neighbourhoods in California suffer, but they quickly rebuild, or comfortably relocate to less-vulnerable areas. Wealthy Australians, despite the awful droughts that strike the continent, are not unable to take showers, drink water or wine, or eat water-intensive crops. I know of no credible predictions that suggest that climate change will disrupt the privileged lives of wealthy Californians in a historically appreciable manner. (Only in the eyes of the extraordinarily

privileged could breathing wildfire smoke rise to the threshold of historical appreciability.) The false equivalencies between the impacts facing affluent Global Northerners and the truly climate-vulnerable among the world's poor disparage the urgent needs of the latter. To say that wealthy Californians have no lifeboat is borderline campy, particularly given that many of these Californians have written themselves into a story of apocalypse for the reasons described above.

Besides its fundamental falseness, the narrative of the shared fate upends the actual politics of the climate crisis. The actual politics are this: current and historical emitters in the world's industrial and post-industrial nations have caused a kaleidoscopic crisis that threatens the lives and livelihoods of hundreds of millions, mostly in the Global South. From the emitters' perspective, the narrative should read: *we did this to them*. The science fiction version of the story completely overturns the moral framework of the problem, suggesting that we all need to be rescued (even if to different degrees). The politics of self-preservation obliterates the politics of oppression that more accurately characterise the issue.

Let's begin from the perspective that, although climate change touches us all in some way, we do not share a common fate. Starting from this point, the world's privileged realise that we are on dry ground; the metaphorical lifeboats are for us to build and launch into the murky waters of the Anthropocene. For many in the Global North, there is no need to be saved; for those in the Global South, salvation cannot come quickly enough. Nor is salvation simply reversing climate change, but addressing the multifarious ways in which industrialisation and colonialism have upended livelihoods and landscapes in order to extract resources and export pollution to the periphery of the Global North.

When we abandon the seductive science fiction story, we find ourselves back in the same rut: where the world's affluent continue to bring ruin and destruction to the world's poor. What *has* changed—that we are finally required to pay for some share of the damage we wrought—does not alter the fundamental character of the problematic. Elizabeth Povinelli brilliantly tells an interviewer: "You cannot start in a new moment; you cannot start as if everything is new. No, no. This is not new. And we will get no answer, no strategy, if we act as if we are in a new moment" (2021).

Conclusion

The future is indeed dark, but, to borrow from Rebecca Solnit, darkness characterises the womb as much as the grave (2016). History teaches us that our present was not predictable. Over a single human generation, fears can rise to a fever pitch and then ebb without adequate explanation. To quote Jeff Tweedy of the band, Wilco, "Every generation thinks it's the end of the world." Yet there is something about our present moment that causes us to look wide-eyed into the future and discard so much of the past, as though it were irrelevant for managing the crises of our day. This reinforces the idea of contemporary exceptionalism: that there is no useful precedent, that the past offers little in the way of instructions for the future. (This seems to haunt each generation in turn.)

Of course, the crises of the present moment are hauntingly real. This was also true of the crises of the past. But the widespread experience of despair, which is new to the modern era, has urgent political implications. In the 1960s, anger over the Vietnam War, environmental destruction, racism, and sexism led to a cultural uprising characterised by outrage and anger, but also a stubborn hope that the future could be better than the present. The hippies, civil rights activists, and war protestors were trying to build a better world rather than save the current one. In our present moment, such a statement registers as somewhere between naïve and heretical among certain circles. Among the few who acknowledge the severity of climate change and believe in the possibility of a better future, many have cast their lots with the peculiar brand of capitalism known as *ecomodernism*, which preaches that, through technology and venture capital, all things are possible (Danowski and Viveiros de Castro, 2017).

The privileged left has increasingly rallied behind the notion that "Science" is the author of apocalypse (Dörries, 2010). What many fail to realise is that the narrative of apocalypse is one we are writing for ourselves. When it comes to climate change, science is mute on the question of doom. The task, then, is to recognise when doom comes from within our own frustrated and alienated psyches, when we seek a narrative that is grander than the banality of relentless post-industrial malaise. Our "despair is personal in origin, projected outward as political analysis" (Solnit, 2016: 21). In these frightening times, we have lost the ability to distinguish our states of mind from the state of the world.

A San Franciscan told me about the smoke two summers ago, how it was "apocalyptic." A television producer in Connecticut told me about how he and his wife moved to a house on a hill; their old one kept flooding in storms. "I guess you could say we're climate refugees," he

said over a sumptuous dinner with an unironic smile. Since time immemorial, humans have looked to the landscape to tell stories: how mountains got their shape, or how rivers came to be, or how the sun, moon, and stars arrived in the sky. These stories have meaning: they are not just stories about the world, but about the human place within it. The world itself becomes a canvas for these depictions. Maintaining ecological and emotional maturity on the planet requires that we tell these stories without confusing ourselves with the entire Earth. Put differently, we must refuse to project stories of planetary destruction as a metaphor for the human condition. Instead, we must insist on coming face-to-face with our own alienation instead of the projection of that alienation onto the planet writ-large.

8. Conclusion

In June 2022, Jennifer Senior wrote a chilling profile of Stephen Bannon, the conservative media figure and political strategist who helped lead Donald Trump's successful presidential campaign in 2016. To illustrate a point about manipulating voters, Bannon conjures a theoretical American, "Dave in Accounts Payable." What happens when Dave dies, according to Bannon? "Some preacher from a church or some guy from a funeral home who's never met him does a 10-minute eulogy, says a few prayers… And that's Dave" (Senior, 2022). In more academic terms, Dave is an archetype of modernity's "unremitting banality" (Sontag, 1961b: 224), the threat of "the deadliest, most sterile passivity history has ever known" (Arendt, 1958: 322). Dave exemplifies the notion of an anonymous life and an anonymous death—desolate alienation. Bannon, via Senior:

> But that's *offline* Dave. *Online* Dave is a whole other story. "Dave in [an online, multiplayer video] *game* is Ajax," Bannon continues. "And Ajax is, like, *the man*." Ajax gets a caisson when he dies and is carried off to a raging funeral pyre. The rival group comes out and attacks. "There's literally thousands of people there," Bannon says. "People are home playing the game, and guys are not going to work. And women are not going to work. Because it's *Ajax*." (Senior, 2022)

In Arendtian terms, Dave in Accounts Payable is part of the public realm—but only online. Offline, Dave is an *animal laborans*. Online, Dave is a *zoon politikon*. (Offline: labour. Online: work.) Bannon noticed this: a whole subset of American society found their online lives to be *less alienated* than their analogue lives. And it was that insight that led Bannon to reinvent Breitbart News, the nucleus of what has since become an entire online media ecosystem in which disaffected Americans have bought into a trove of misinformation in exchange for re-establishing the public realm—with paltry regard for the truth value of this realm's core tenets. "I want Dave in Accounting to be Ajax *in his life*," Bannon explains. And that, says Senior, is exactly what happened on 6 January 2021, when a coordinated mob of Daves stormed the U.S. Capitol. Arendt's public realm was reconstructed in vivid colour. But this time, it wasn't in a video game; it was borne out of a digital parallel universe that jumped the track and crashed headlong into the analogue world. Senior:

> The angry, howling hordes arrived as real-life avatars, cosplaying the role of rebels in face paint and fur. They stormed the Capitol while an enemy army tried to beat them away. They carried their own versions of caissons. They skipped a day of work. And then they expressed outrage—and utter incredulity—when they got carted away.

The fantasy and the reality had become one and the same. (Senior, 2022)

Senior (with Bannon) shows us the malleability of political and social reality. It goes without saying that the "cosplay" described above wasn't really cosplay at all—in fact, it was precisely the sort of high-stakes political activism that is almost only undertaken by those who feel acutely that something extraordinary is at stake. In this case, the rioters felt that their nation, their freedom, and their children's future were imperilled. They didn't stay home and post about it on social media; instead, they put their bodies on the line, facing arrest, choking on pepper spray, and suffocating in crowds—actions that are more commonly associated with radical progressive activism. What registered to us viewers as buffoonery of epic proportions was to them simply epic.

The video footage that emerged from the 6 January attacks in the US had a peculiar feature. As the attackers breached the Capitol, a few of them looked unexpectedly confused or taken aback once they entered the building. They walked through the Rotunda or Statuary Hall, gazing up at the enormous oil paintings and ornate ceilings. They saw themselves as heroic liberators, but instead encountered a humbling architecture of political gravitas. Some of them looked suddenly meek, even dazed. Many walked neatly along the narrow corridors of red velvet barriers. They paused to take photographs like tourists—not even selfies.

For some, this was evidently a moment of rupture. Whatever these people had expected to find—whatever they imagined the dark machinery of political corruption to look like—this was clearly not it. The actual breaching of the Capitol on that day was positively deflationary. It was the beginning of the end, and most of the invaders left more or less on their own terms, walking out the doors as freely as they entered, but with some sense of confusion. The epic standoff between democracy and tyranny was nowhere to be found. It was as though they had been given the wrong address for a party.

In the context of climate change, a similar disconnect has emerged. The sense of accelerating doom, of rancid political conspiracy, and of rampant destruction thrives in online circles and urban spaces. At times, some activists seem insistent upon the impossibility of a solution—exemplified by the spirited protests and acts of civil disobedience that erupted recently in opposition to Tesla's expanding car factory near Berlin. The activists were protesting the clearing of forest to make room for the factory. In some spaces, the victory desired is not technical or economic but moral, and anything short of moral victory is defeat.

Why don't we speak more loudly and critically to the Ajax effect of climate activism? Many of the world's urban children have been told that their personal, corporeal futures are

gravely threatened by climate change—an undeniable truth in some parts of the world, and a probable falsity in places like London and San Francisco. They are being offered a choice: "unremitting banality [or] inconceivable terror" (Sontag, 1961b: 224). (It bears mentioning that according to survey data, roughly 2 billion people on Earth have never heard of climate change at all; Leiserowitz, 2015.)

Given the choice, it's no wonder people chose Ajax—particularly when the version on offer is not like the nuclear horror of my parents' generation, but is rather a democratised and egalitarian apocalypse that almost perfectly fits the mould of an excellent science fiction film (Sontag, 1961b).

The Arctic is enlisted as a narrative device in these stories. Stories of regional collapse are projected from afar, with the assistance of reporters who spend a few days in places like the Arctic and return with dramatic stories of ecocide. Scientists also help, lending an air of authority in their capacity representing "the sole authorized intermediary of first Nature" (Danowski and Viveiros de Castro, 2017: 87). In a video posted to his Twitter page, Peter Kalmus, one such scientist with 350,000 followers, dons a white lab coat and chains himself to the doors of JPMorgan Chase's New York City headquarters, telling an interviewer, "We've been trying to warn you guys for so many decades, that we're heading toward a fucking catastrophe… We're going to lose everything, and we're not joking. We're not lying, we're not exaggerating" (Kalmus, 2022).

Mia Bennett implies that there is a sublime and picturesque quality to such apocalyptic descriptions, particularly in the Arctic, which in turn instil a feeling of powerlessness or resignation among viewers (2021). This may be true for many viewers, but for others, the literary or romantic quality of these representations seems to serve to raise the stakes, giving credence to declarations of "climate emergency" (Hulme, 2019), and driving activists to put their bodies on the line.

But these narratives of planetary doom are starkly absent from some of the most violent and menacing places of the climate frontier. The disconnect that emerges here should alarm us for the breadth of the ontological chasm that separates those most vulnerable to climatic hazards from those least vulnerable to climatic hazards—but whose perceptions of long-term risk appear inversely correlated to exposure. As mentioned elsewhere in this dissertation, my finding replicates other scholars' research with rural Indigenous communities arriving at similar or supporting conclusions (Forbes and Stammler, 2023; Furberg et al., 2011; Petheram et al., 2010).

In rural Alaska, there is no sense of shared planetary fate, nor a solidarity that transcends continents, histories, and peoples (Davis and Todd, 2017). Here, the vision of climate change is anti-imperial: rooted in experience, less interested in what "Science says" than in local and Indigenous knowledges, and generally disinterested in engaging with climate change as a harbinger of global apocalypse. What matters on the frontier is local, because non-Modern communities have not traded in a sense of grounded identity for a feeling of planetary belonging. Viewed from a particular decolonial vantage, this is a partial perspective (Haraway, 1988). It is also complete, in the sense that it is sufficient for the task at hand. The task at hand is not "understanding" but existing, and later, thriving.

The tension may never resolve. Even today, the public is sharply divided on the safety profile of nuclear energy, genetically modified organisms, and vaccines—risk discourses that long predate the entry of climate change into the public political lexicon. The task for the terrified-but-relatively-safe, I propose, is to encounter their own reflection in apocalypse's mirror. The alternative way to reconcile this contradiction would require hypothesising that these Indigenous communities are inappropriately assessing the risks posed to them by probable climate change—but who better to judge an existential risk than the communities that have survived so many?

Overview of Thesis

This thesis began with an overview of its two halves: the literal and the allegorical. Chapter 2 introduced the political and historical landscapes of Western Alaska, and the role of the Arctic in the sort of apocalypse discourse that my research challenges. Chapters 3 and 4 reviewed my methods and discussed the theory and practice of environmental ethnography as a tool for listening to the landscape-a practice long ago mastered by the likes of Barry Lopez, but which remains marginalised in ethnography (and frequently conflated or overshadowed by multispecies research).

In Chapter 5, I turned to squarely face the literal half of this research, focusing on the colonial politics of climate adaptation. I found that the conduct of government itself is a critical focal point for understanding colonial power relationships, and that the fraught paradigm of "capacity" often gives cover to dysfunctional processes that undermine the exercise of Indigenous sovereignty.

In Chapter 6, I began building the bridge between the literal and the allegorical by addressing the nature of fear and climate anxiety in two Western Alaska communities. I found that fear, in these places, is best understood as *infrastructural* rather than *existential*, in the sense of being localisable to a particular object, and in that sense essentially unlike the dread or anxiety that is so common in modern, urban environments. The nature of climate dread in these communities should be read as an challenge to the open-armed embrace of apocalyptic anxieties by many in the social sciences and humanities. Perhaps, *contra* Latour, now is not the time to engage in apocalyptic discourse in the present tense (2017: 194).

In Chapter 7, I turned to face the mirror as best as I could, to bring this thesis "home" in a cultural and political sense, by facing head-on the suspicion that lurks at the periphery of this dissertation: that the narrative of apocalypse is darkly seductive to some of us, and that a subset of the West has not reckoned with its allure, but rather fallen under its self-indulgent spell. I turned in particular to Hannah Arendt and Susan Sontag to try to place our contemporary anxieties into a broader sweep of emotional and political history. I suggested, finally, that what we are seeking in the spectre of apocalypse is an antidote to alienation. I contrast this longing with my perceptions of Native Alaska; in spite of everything that has been taken from my Indigenous research participants, their sense of belonging to the land and to each other has largely endured. Perhaps this is the antidote.

These ideas are hardly new. Barry Lopez wrote about the consequences of this sort of alienation for decades. Before him, Mary Oliver, Alan Watts, and Aldo Leopold did the same—the notion of alienation driving despair has accompanied spiritual traditions and intellectual thought for centuries. And more recently, authors such as Robin Wall Kimmerer are bringing these back into public view.

The central theoretical contributions of this thesis are fourfold. First, I posit that apocalypse narratives themselves—and particularly those attached to climate change—offer an escape from alienation in the same way that certain right-wing populist politics do. My conjecture does not challenge or contest the geophysical reality of climate change. We could be, as Peter Kalmus claims, on the cusp of losing everything, and the conjecture can still hold.

My second theoretical contribution is my claim that fear of climate change has been given a theoretical "pass" by social scientists and humanities scholars who ought to know better. Scholars have overlooked decades of critical feminist scholarship by permitting climate change to exist in a disembodied way and at a planetary scale. We have further permitted an ahistorical account of climate change by broadly declining to place it into comparative contexts

against, say, nuclear anxieties. And finally, far too many scholars have even goaded on apocalyptic discourse without grounding their work in any sort of consensus-based assessment of socioecological risk (e.g., Danowski and Viveiros de Castro, 2017). In my estimation, more we chase the concrete, embodied, and fleshy accounts of climate catastrophe, the farther it appears to recede along the horizon.

My third theoretical contribution focuses on how the Arctic has been enlisted to support these scholarly and popular apocalyptic discourses. The Arctic, I argue, is uniquely suited to this role. Beyond the obvious fact of its warming at a rate several times the global average, the Arctic is also distant, and through its distance offers itself to the imagination as a sort of blank canvas. This role, I argue, is a dramatic shift from the Arctic's 19th- and 20th- century purposes in the popular imagination, but is fundamentally enabled by the same factors.

My fourth and final theoretical contribution turns to the governance of the communities in North America most vulnerable to climate-related cataclysm. I find that marginalised Indigenous communities face a neo-colonial pressure whereby, in order to receive assistance, they are required to adopt the bureaucratic forms and logic of their colonisers. This is particularly evident in the fraught discourse of capacity-building, which locates adaptation failures within oppressed communities, rather than within systems of oppression.

Limitations

In this relatively wide-ranging study, I invariably had to make difficult choices about which pathways to choose, vis-à-vis methodologies, field sites, and analytic approaches. Just as often (or more often), these choices were made for me, shaped by the opportunities that readily came to me in the field, alongside the constraints, like Covid-19. Doors opened and closed, and it was all I could do to say "yes" to the ones that made the most sense at the time, and then weave together an appropriate analysis from the stories I gathered along the way. Improvisation remained a decisive part of the journey.

My interest in pursuing a multi-sited ethnography opened me further to some methodological hazards, particularly in the temptation to generalise beyond the bounds of my field sites (Candea, 2007). I was somewhat surprised to find that my research participants had exactly the same concern. On several occasions, participants made clear to me that they were not speaking on behalf of communities beyond their own. There are over 200 Alaska Native villages—and I am certain that had I been invited to conduct research in villages other than

Sinuk and Pastolik, I would not have reached precisely the same conclusions. Perhaps I would have encountered different forms of dysfunction, or found systems that worked relatively well for other Tribal communities but that were routinely problematic in Norton Sound. I cannot know the answer to this, but I take comfort in knowing that although my choice of community necessarily limited my insights, there is only one federal government administering programmes for Native America. As a result, I would hope that my findings would have some broader generalizable force—after all, as I hope I have made clear, this research is not an ethnography of Alaska Native communities, but rather of the relationships of power that bind them to the colonial United States government.

A further limitation of this research is my choice to work in particular with Alaska Native *Tribal* governments. Alaska Native villages often also have municipal governments and quasi-governmental village corporations (which typically own the majority of a village's land). But only Tribal governments have a nation-to-nation relationship with the United States. Still, cities and corporations exercise critical functions within Alaska Native communities, and by virtue of having different legal status, they form separate political constellations with state and federal actors. Although I interviewed several mayors, city councillors, and village corporation board members, I did not conduct any participant observation in the offices of these entities. This could potentially constitute a significant blind spot in my research, although in my interviews I did not find any suggestion that the political forces documented here differ significantly from those in other Alaska Native entities.

Readers will note that I have only cursorily engaged with anthropological studies of Western Alaska Native communities. Why? First and foremost, because this is not an ethnography of Iñupiaq, Siberian Yupik, or Yup'ik peoples. But I suspect it equally creates a limitation of this research that my findings are not in more in-depth conversation with anthropological studies, which could potentially highlight the geographical and cultural contingencies of the observations presented here. That said, I am not trained as an anthropologist, but rather as a geographer; and perhaps more importantly, there is already a wealth of ethnographies from the Norton Sound region and surrounds (e.g., Briggs, 1970; Jolles, 2002; Koutsky, 1981; Marino, 2015; Sakakibara, 2008, 2017; Voinot-Baron, 2020); how my contribution to that literature would align with the decolonial imperative of beneficence remains an open question.

With additional resources (i.e., time, funding) or more active collaborators, many of these additional questions and methodological approaches might have been successfully

integrated into a broader research platform. Specifically, I would have preferred to have funding to hire Indigenous Alaskan research collaborators, who might have been able to lead a more ethnographic line of inquiry. Such research might have asked about the particularities of Iñupiaq, Yup'ik, or Siberian. Yupik cultures, and how those cultural landscapes coproduce political outcomes when placed into contact with the culture of Western bureaucrats. But as I mentioned in Chapter 3, my choice of methodology was guided by a desire to depart from the fraught model of the visiting ethnographer, and to ascertain instead how I could improvise a role as a sort of scholar-ally. As I write this, having visited Pastolik six times now, I feel relatively better equipped to incorporate ethnographic approaches into my future work. But that feeling of comfort comes from a foundation of trust and confidence that developed over several years of research engagements. Put differently, I didn't build the ship at sea.

Similarly, there are other social-scientific methods that I might have used, such as conducting a textual analysis of Tribal grant applications obtained through a public records request. Instead of conducting a textual analysis, I chose to analyse the discourse of participants in meetings and telephone calls. Part of this was due simply to constraints of time and space. For example, the public records request I submitted in May 2023 for internal Bureau of Indian Affairs documents is still unprocessed—despite the statutory requirement for such requests to be fulfilled within 90 days after filing. Another constraint was that, although I was given access to sensitive documents, e.g., email records between Tribes and BIA officials, I do not feel comfortable publishing those records without having obtained them through public records requests—so as not to implicate my Tribal collaborators for sharing privileged communications with me. I could have conducted an analysis simply from the obtuse text of grant applications, government forms, and procedures, but in my extensive reading through these materials, I didn't find anything particularly surprising, beyond validating what a layperson might readily assume about the complexity and opacity of these processes. Put simply, I hypothesised that a textual analysis would have yielded a similar central conclusion: that "mastery of language affords remarkable power" (Fanon, 1952: 18). This led me to prioritise researching the unscripted moments when the dynamics of power and prejudice were less concealed through language games.

Perhaps a final limitation is that, although my research is in close dialogue with broader Western discourses of climate change—and specifically climate apocalypse—I neglect to locate these discourses in a concrete and embodied manner. Instead, I gesture to them statistically (Hickman et al., 2021) and locate them discursively in academic texts (Danowski

and Viveiros de Castro, 2017; Latour, 2017; Lynch and Veland, 2018). But I do not direct any ethnographic attention to these voices. For example, I might have conducted interviews with climate activists about their apocalyptic anxieties, or with therapists who specialise in "eco-anxiety," and compared those findings with the interviews I conducted in Western Alaska.

Future Directions

Since I began this research in 2019, several developments have taken place in the Alaskan and broader American policy landscape. The Biden Administration, which took office in January 2021, has taken a vigorous interest in protecting climate-vulnerable Indigenous communities. The Bureau of Indian Affairs branch of Tribal Climate Resilience has made several high-profile grant commitments, with a huge cash infusion from the Bipartisan Infrastructure Law. In Fiscal Year 2023, these grants totalled $120.8 million. While encouraging, the Bureau of Indian Affairs has estimated that Alaska Native village infrastructure protection and replacement due to erosion, flooding, and permafrost thaw will cost upwards of $4 billion in the next fifty years (US Government Accountability Office, 2022). The recent increase in funding, while dramatic and laudable, still lags far behind what is necessary.

All the while, public interest in—or perhaps fascination with—vulnerable Alaska Native communities has surged. A documentary titled *Newtok: The Water Is Rising* was purchased by the clothing company Patagonia and distributed for free on YouTube, where it has gathered over 600,000 views. The film portrays the Native Village of Newtok's fight to secure funding to relocate—at the time of writing, Newtok is farther along in this process than any other Alaska Native village. A 2022 feature article in *The New Yorker* profiled the Northwest Alaska Iñupiaq village of Kivalina. It ran with the headline, "An Alaskan Town Is Losing Ground—and a Way of Life" (Witt, 2022). In 2022, the US Government Accountability Office released its fourth report to Congress on the disastrous state of Alaska Native climate adaptation.

Last December, the White House released an "Executive Order on Reforming Federal Funding and Support for Tribal Nations to Better Embrace Our Trust Responsibilities and Promote the Next Era of Tribal Self-Determination"—an exciting step toward addressing many of the governance failures outlined here. The Executive Order states:

> Federal funding and support programs that are the backbone of Federal support for Tribal self-determination are too often administered in ways that leave Tribal Nations *unduly burdened and frustrated with bureaucratic processes*. The Federal funding that Tribal Nations rely on comes from myriad sources across the Federal Government, often with *varying and complex application and reporting processes*. While Tribal Nations continue to rebuild, grow, and thrive, some Tribal Nations do not have the capacity and resources they need to access Federal funds — and even for those that do, *having to repeatedly navigate Federal processes often unnecessarily drains those resources*. (White House, 2023, my emphasis)

Implementation of this Executive Order began in January 2024. It remains to be seen how much can be accomplished from a top-down intervention from the poorly-staffed White House—the Executive Office of the President has just 1,800 employees—to the vast bureaucracies of Federal Agencies (Bureau of Indian Affairs alone has 4,500 employees). As this dissertation illustrates, changing the culture of domestic diplomacy is not necessarily amenable to straightforward policy directives.

The urgency of addressing these various issues took on new urgency with Typhoon Merbok in September 2022. The widespread destruction of the storm—and the sense that many communities were relatively lucky given the direction of the wind at the time the storm made landfall—was itself an "intrusion of Gaia" moment in the Alaskan political landscape. Climate adaptation took on a new feeling of urgency, and the life-or-death consequences of delayed action became suddenly, viscerally clear.

With that context in mind, I pause to consider future research directions to further advance this work.

Action Research

To advance this field and benefit Alaska Native communities, future investigations could be more participatory and explore *what works* within the context of managing colonial bureaucracy; this is fundamentally a political science question, and one in close conversation with other scholars who have examined the (dys)function of bureaucracies in Native America (Cornell and Kalt, 2010; Kalt, 2003; Ristroph, 2017; Shearer, 2012). Across Native America, the governance problems posed by climate change and related environmental hazards are met with a wide range of responses, raising pressing questions about the utility of different interventions. For example, does regionalisation of services for Alaska Native villages increase their success with funding agencies? Or, how influential can a single dedicated "relocation,

managed retreat, or protect-in-place" (RMP) coordinator be? (Such positions are funded by the BIA Tribal Climate Resilience Program.) Does assigning a professional grantwriter to a Tribe for a period of several months or years yield appreciable differences in outcomes as opposed to Tribes whose grantwriters often come from within the community and are commonly self-taught? The EPA's "Environmental Justice Thriving Communities Technical Assistance Centers Program" (EJ TCTACs), which began last year by funding 16 such centres with a total of $177 million, could offer fruitful partnerships for this sort of research.

At stake in this research direction is the now-canonical formulation from Kalt and Cornell (2010): that American Indian and Alaska Native service delivery works best under the conditions of *self-governance*. The research avenues proposed above could open fruitful new avenues into testing their findings in a novel context.

Pre-Disaster Opportunity Landscapes

In this dissertation, I hinted at connections between the threat of displacement for Alaska Natives and the role of disaster capitalism which lurks at the edges of climate change (Stanton, 2022; Tsing, 2015). The case of Alaska is curious in particular because of the spectre of *pre*-disaster capitalism—particularly in the cottage industry of engineering firms and Tribal-specialised consultants who offer to help clients navigate federal grant programs. These interventions are pre-disaster because, in many instances, no *event* has taken place. Future research could involve interviewing or conducting participant observation with these opportunistic firms and their clients. Such studies could advance conversations around disaster capitalism and the political economy of climate crisis.

On the Possibility of a "Post-Climate" Community

A feature of Western climate change discourse is the assumption that climate change is a permanent state of crisis—epitomised by the discourse of the "Anthropocene," which itself suggests a period of emergency that will stretch into geologic time (Haraway, 2015). But as Alaska Native villages manage to successfully relocate to higher ground in the coming years, a new ethnographic opportunity will arise. Will these communities see themselves as "post-climate change," in the sense of having broadly adapted? Or will they continue to see themselves as existing in a state of crisis? The answer could potentially yield important insights and contrasts with urban narratives of climate crisis, in which adaptation is almost always rendered as partial and incomplete, where vulnerability may be attenuated but never fully

retreats from the horizon. Thes findings could speak directly to—and challenge—the conception of apocalypse discussed in Chapter 7 (Danowski and Viveiros de Castro, 2017; Latour, 2017). The stories that emerge could also complement other research on post-disaster social landscape, such as Rebecca Solnit's *A Paradise Built in Hell* (2009).

A Textual Analysis of Micropolitics

My analysis of micropolitics in Chapter 5 focused on ethnographic data. Future research may wish to explore this same phenomenon textually, for example, by issuing a public records request and reviewing Tribal grant applications and federal government evaluations. I hypothesise that such an analysis would further reveal a *logic of bureaucracy* that structures outcomes for Indigenous communities and operates with limited fidelity to need or merit. (Anecdotally, a review of recent Tribal Climate Resilience grantees shows awards being given for projects that are sensible, but do not in any respect address critical infrastructure needs in climate-vulnerable communities. In other words, communities like Pastolik with life-threatening needs have lost out in competitive grant cycles to communities proposing, e.g., a Tribal greenhouse.) This analysis could advance broader scholarship on bureaucracy (Balestrery, 2010; Graeber, 2009; Herzfeld, 1992; Weber, 2009), which to date has not been fully developed in the North American colonial context, with the notable exception of Coulthard (2014).

Dread on the Climate Periphery

Finally, future research would do well to look more seriously and patiently at the nature of climate anxiety, taking a more qualitative approach than the standard methods of public health researchers and social psychologists. This could take several forms: participant observation of climate activists (Neas, 2023), in-depth interviews with mental health professionals specialising in ecological anxiety, or interviews with parents and teachers of young people experiencing climate-directed mental health issues. It would be important to ensure these studies are on the "climate periphery" rather than the climate frontier—i.e., geographies and economic and political classes that are dramatically more climate-safe than Sinuk and Pastolik (e.g., San Francisco or Cambridge, England). Such an investigation would be able to take more seriously the nature of climate dread, and perhaps undertake a sort of emotional-intellectual genealogy connecting climate dread in academic discourse to climate

dread experienced by individuals who have not chosen to study or engage with the phenomenon professionally.

Epilogue

In the final weeks of drafting and revising this document, I dreamt that I competed in the Iditarod, the world's best-known annual sled dog race that ends in Nome. Most first-place teams take nine days to run the 1600-kilometre course. In my dream, I was about two-thirds of the way through, and I was doing improbably well. I was a rookie, of course, but had also taken only six sled dogs—about half of the average Iditarod outfit. And yet I was in fourth place. I was delighted with this outcome, and didn't feel compelled to do any better. Still, I hoped that my luck wouldn't run out.

The dog team and I stopped in a village to rest at one of the race's many checkpoints. My friends were there, Tim and Burr, who taught me to mush in the past two years. The village was forested, like Koyuk, in Norton Sound, which happens to be one of the last checkpoints in the race. After we rested, the team and I set out again. But we quickly became lost. We didn't even know which road to take out of the village. It was early morning, and the light was grey and flat. I looked for a sign and found none. I tried to fight back a feeling of resignation, a suspicion that this improbable journey was drawing to a close. Then I woke up.

My psychic dreamscape in this instance could equally have been in dialogue with the intimate geography of my life—finishing a PhD with a lack of clarity about what will come next—or with the fundamental questions I've raised in these five years of research: about the direction of post-industrial humanity at a time that increasingly feels like a crossroads. The "End of History" (Fukuyama, 1989) cliché feels more quaint with each passing year. History is decidedly not over; but for many, the future feels grimly preordained. ("Much has been written recently about endings," is how I began my PhD application more than six years ago.)

> "If we want to divest from the habits of paranoia, despair, and policing that have come to menace and control even the most well intentioned among us—habits that, when continuously indulged, shape what's possible in both our present and future—we are going to need methods by which we feel and know that *other ways of being are possible*,"

writes poet Maggie Nelson (2021, my emphasis). This investment in the possibility of other ways of being is what has animated my interest in, and respect for, Indigenous resilience in the 21st century.

These other ways of being are essential to resisting the elegiac mode in ecological thought, which has grown to a dull roar within a broad swathe of society. To borrow from Timothy Morton, we need to learn to choke on our grief rather than swallow it (2010). In a brilliant essay extending Morton's theory to Alaskan landscapes, Will Elliot writes,

> Although elegiac representations of Alaska may be effective in the short term at mobilising audiences in response to specific threats like arctic warming, in the long term they also imply the futility of those responses, the finality of late-capitalist modernity, and the terminality of everything else. (2017: 54)

Elliot suggests instead that we look for "a climate change narrative… that keeps in view not just the suffering but also the futurity of imperilled communities" (2017: 59), like any number of Alaska Native villages. Sinuk and Pastolik are not foreclosing on their own futurity; how dare any of us impose apocalypse upon them from afar?

In the dreamscape, being lost is *critical*, in the double meaning of being *essential* and being *sceptical*. Being lost is not knowing where the trail goes from here. It is the status of indeterminacy, without "the pleasure of moral certainty, of definitive solutions, of a blameless way of being in the world" (Elliott, 2017: 59). The failure of leading academics in this regard is monumental. As a young student standing on the shoulders of giants, I have hesitated to take such pointed issue with scholars whose work I have long admired. But when I witness Eduardo Viveiros de Castro write, without a trace of irony, that "this time, things will turn out bad for everyone, everywhere" (Danowski and Viveiros de Castro, 2017: 95), I cannot help but wince. This is a proclamation with no doubt, no room for the possibility of being lost, no space for "staying with the trouble" (Haraway, 2016). Instead, it is the simplest, most un-critical resignation—the certainty that we are collectively "in a bucket on a sluice to hell," to lean again on Nelson (2021a).

Is it possible that these august elders are collectively mistaken about this particular and narrow vision of a gaunt future? I take comfort standing on the shoulders of other giants—Haraway, Whyte, Povinelli, Lopez, Cronon, Mary Oliver—grounding my would-be heresy in their wisdom. *Wait—why are these all Americans?* I cannot say for certain, but I suspect: either a proximity to wild nature and/or a familiarity with rural Indigenous communities informs their environmental thought in particular and indelible ways, and partially inures these thinkers from the self-indulgent eco-elegies that predominate in urban settings. Lopez, writing of the Inuit, says as much: "This archaic affinity for the land, I believe, is an antidote to the loneliness that in our own culture we associate with individual estrangement and despair" (1986: 266).

Strangely, perhaps unlike most theoretical claims, the future will ultimately weigh in on these conflicting interpretations of our present condition. Either “things will turn out bad for everyone, everywhere,” or they will not. For my part, I cast my lot with the men and women of Sinuk and Pastolik, who are planning on a future, along with the broader panoply of Arctic life. They know more about survival than I ever could.

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